Accurate® Smokeless Powder

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What's New in This Manual

- Data for MAGPRO for .300 Win Short Mag (WSM), .270 Win Short Mag (WSM), 7mm Win Short Mag (WSM), .243 Win, .25/06 Rem, .264 Win Mag, .270 Win, 7mm Rem Mag, 7mm Rem Ultra Mag, .30-06 Springfield, .300 Rem Ultra Mag, .338 Lapua Mag
- New calibers including .300 SAUM, 7mm WSM and .270 WSM.
- Updated powder descriptions

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INTRODUCTION

This booklet is an introductory guide to the use of our **Accurate® Smokeless Propellants**, including the Scot™ series of shotshell propellants. The data for the metallic cartridges has been derived from our more comprehensive No. 2 loading guide. (It is available from your local dealer, or check the inside back cover of this booklet for ordering details.) The shotshell data is the latest we have available on the Scot series and is only available in this guide.

SAFETY

In reloading, the prime concern should be **SAFETY.** Always wear eye protection when reloading, even when working with "non-volatile" components. Always keep the reloading area clean. **Never** have more than one propellant within easy reach at any given time. Avoid having similar looking bullets of different weights on the bench at the same time. Read the safety notes in the center of the booklet before loading.

If you are new to reloading, we recommend that you obtain and read a book such as Dean Grennell's "ABC's of Reloading" or any other publication specifying the reloading procedures in detail. It will help provide the basics for getting started. Loading manuals from the bullet companies provide information about reloading for metallic cartridges. All loading tools (metallic and shotshell) come with instructional text.

Metallic Centrefire Calibers:

As with all editions of our loading data, as well as all other publications, one must be aware that the velocities and pressures generated for a *specific combination* of gun (i.e. chamber/barrel internal dimensions), and components, (i.e primer, case and bullet) *may differ significantly,* from what is listed in this guide. That's the reason why a safety margin of 10% is built into the "START" load.

This is the golden rule of reloading: To always start at the suggested minimum "START" load. This also applies whenever a change is made to any one of the components of the combination, i.e., primer, case or bullet.

The only charge that can be guaranteed to be safe, is the minimum or "START" charge. The misconception that the maximum charge (or any charge beyond the minimum load) is also safe, is not true at all. The myriad of variables outside the control of the compiler of reloading data, does not allow for that exact a prediction.

This guide is a report of the velocities developed on a given day under a given set of lab conditions. Variations as much as 10% have been recorded between different combinations. Therefore, a variation in performance should be expected. In the case of metallic centerfire calibers, the minimum loads are listed. In certain cases where only one load is listed, such as reduced loads for special applications such as training, Cowboy action, galley loads etc, the listed charge can be used as is. In such cases the fact will be stipulated.

Please use caution when reloading with military cases as some batches of military cases

have reduced interior volume and may require reducing the charge even further to keep chamber pressure in line.

In the case of revolver calibers, some data was compiled using un-vented test barrels. Please expect a lower velocity in actual revolvers. This lower performance will depend on the conditions and parameters of each combination. This will depend on the cylinder gap, burn rate of the propellant, as well as the performance level.

WARNING concerning reduced loads: For this special type of application, it is often necessary to load below the 50% case capacity level. This, combined with the fact that fast handgun/shotshell propellants are recommended and used to maintain the combustion efficiency, creates the real possibility of "DOUBLE CHARGING." THIS WILL HAVE DISASTROUS RESULTS. Please verify and check each and every loaded case with a marked plunger before inserting/crimping the bullets. Haste in this case is not worth the risk!!!!

Shotshell Calibers:

The charge tables for shotshell cartridges are to be used as a guideline. Variations can occur, although to a lesser degree than with metallic centerfire calibers. Even when the exact same components are used, the difference *due to case condition, crimp, and primer* may cause variations beyond what is normally being accepted and/or assumed. Shot shell calibers are especially sensitive to variations in primers and assembly procedures. The normal variation in primers even from one manufacturer will result in different ballistics. The shot weights listed in this booklet are for lead shot; *steel shot may not be substituted*.

If you find indications of excessive pressure while using loads in this guide STOP TESTING, and verify all data and loading procedures. If things seem to be in order, check with our lab personnel before proceeding. The phone number to use is (931) 729 4207.

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ACKNOWLEDGMENTS

The following companies/individuals have been helpful in the preparation of this loading guide:

Ballistic Products CCI/Speer **Douglas Barrels** Clements Casting Hornady Bullets **Bull-X Bullets** Eldorado Cartridge Cooper Arms Magnum Research Lee Precision Forster Products Mayville Engineering (MEC) Freedom Arms **Nosler Bullets** Miller Arms Penny's Casting Lyman Products **RCBS** Remington Arms Company Redding-SAECO Precision Machine Starline Sierra Bullets White Rock Tool & Die Thompson/Center Arms H-S Precision Mike Roese Wolfe Publishing Company C. Sharps Arms Bill Wiseman **Barnes Bullets**

LEGEND

		_	
A-F	A-Frame	NOS	Nosler
BAR	Barnes	NR	No recommendation
BP	Ballistic Products	OAL	Overall length
BT	Ballistic Tip	OZ	Ounce
СВ	Claybuster	PART	Partition
CLE	Clements	PC	Pattern control
DGW	Dixie Gun Works	PEN	Penny's Custom Bullets
DE	Double end wadcutter	PMC	PMC/Eldorado Cartridge
F/S	Feet per second	POST	Postell
FA	Freedom Arms	PSPCL	Pointed Soft Point Core-Lokt
FED	Federal	REM	Remington
FIO	Fiocchi	RN	Round Nose
FN	Flat Nose	RPM	Rock Pistol Manufacturing
FS	Failsafe	S	Solo
GD	Gold Dot	S&W	Smith and Wesson
GS	Grand Slam	SCHM	Schmitzer
H&R	Harrington and Richardson	SIR	Sirocco
HB	Hollow base wadcutter	SP	Spitzer
HDY	Hornady	SPBT	Soft Point Boat Tail
HPBT	Hollow Point Boat Tail	SPR	Speer
IMI	Israel Military Industries	SRA	Sierra
(L)	Lead	SWC	Semi-wadcutter
LY	Lyman	SWF	Swift
MAX	Maximum	T/C	Thompson/Center Arms
MIL	Military	ULA	Ultra Light Arms
MIN	Minimum	WIN	Winchester
N100	Nitro 100	X	X Hollow Point

SPECIAL WARNINGS!!!

Concerning the internal dimensions and configurations of centerfire metallic calibers, especially Semi-auto pistols. This warning is not aimed at specific weapons, but any weapon with the conditions or dimensions as described below. Accurate Arms did not compile special data for any weapon.

Chamber dimensions:

It is extremely important to note that due to aftermarket modifications and for certain factory produced semi-auto pistols, some pistols have chamber configurations that do not fully support the chambered cartridge case.

This modification is incorporated to aid in the reliable feeding of the round from the magazine. Although this practice is acceptable with some calibers such as the 45ACP which generate relatively low pressures, this kind of incomplete support can be a real problem with high performance calibers such as the 9mmx19P, 38Super, 40S&W and 10mm Auto calibers. Although it might also be acceptable for first fired conditions such as factory ammunition, or new unused cases, a potential hazardous condition can be created when cases are reloaded for the second or subsequent time. Whenever a deformed case results after firing (e.g., a bulged or "pregnant" shape from the base of the main body towards one third to half of the case body), it is a sure sign that the case is not fully supported. Although this bulged part is reformed during resizing, the case strength could be weakened. The problem occurs when this part of the weakened case again lines up with the modified part of the chamber. This will then cause the case to fail and the gasses to be ejected into the internal cavity of the weapon.

The loading data published by Accurate Arms was developed in our ballistic laboratory in accordance with SAAMI test methods and equipment and does not exceed Maximum Average Pressure recommended by SAAMI. This information is safe for use in firearms which provide complete support of the case. Failure to fully support the case with cartridges of such intensity may result in bulged cases, ruptured cases, separated case heads or other consequences which may result in destruction/damage to the firearm and/or injury or death to the shooter and/or bystanders. This can happen no matter whose propellant is used.

We recommend that if you own a firearm where the chamber does not fully support the chambered round and is producing the above mentioned symptoms, you contact the manufacturer to determine if the case is fully supported, or have a competent gunsmith examine the firearm and determine the amount of support provided the case.

If your firearm does not provide complete support for the case, please take extreme care and refrain from reloading cases.

Unconventional internal rifling/bore profiles in conjunction with cast/lead bullets

This concerns the combination of using cast/lead bullets with rifling configurations other than the standard "square" land and groove profile.

In order to properly engage the bullet, any barrel with an unconventional rifling profile needs to have an extremely tight bore diameter. When lead/cast bullets are used in conjunction with these types of barrels, it is extremely important to properly select the correct type, size (diameter) and hardness of the bullet. Any bullet material that might collect in the freebore/throat area will cause a delay in bullet displacement during firing, which will have disastrous results.

This is especially true in the case of typical high performance auto pistol calibers such as the 9mmx19P, 40S&W, 10mm Auto etc, and in the case of high performance 45ACP + P loads.

We recommend that the shooter/reloader always be aware of the level of leading that is occurring for their combination. Any excessive build up of material should prompt the cleaning of the bore. When plated cast bullets are used, make absolutely sure it is of the best quality possible with no possibility of separation of the plated material form the lead core.

Accurate Arms Company has felt it necessary to place these warnings because the continued safety and welfare of the shooting public compels us to do so.

Accurate® Smokeless Propellants

The **Accurate**® Smokeless Propellants listed below are in approximate burning order from fastest to slowest within each group. All propellants are manufactured with nitro-cotton as the main energetic ingredient. Double base propellants have NG or nitroglycerine as the second energetic ingredient.

PISTOL PROPELLANTS

- **No. 2** An extremely fast burning, double base ball-type handgun powder specifically designed to have a relatively low loading density. A very clean burning powder that is well suited for low-performance and low loading density applications like Cowboy Action. It is certainly the most efficient and cost effective ball-type powder available for handgun loads.
- **No. 5** A fast burning, double base, ball-type handgun powder. This powder is extremely versatile and can be used in all handgun calibers. **No. 5** can be used over a wide performance range from low performance target and Cowboy Action applications to full power defense loads. The powder meters well and strikes a good balance between ballistics and cost efficiency.
- **No. 7** An intermediate burning, double base, ball-type handgun powder. This is a good choice for high performance handgun calibers, especially those designed and used on semi-auto pistols such as the .357 SIG, .400 Corbon, 10mm Auto etc. It is also suitable for the magnum revolver calibers as a cost effective alternative to the slower burning powders normally used for the magnum cartridges.
- **No. 9** A slow burning, double base, ball-type handgun powder. The powder is suitable for standard magnum handgun calibers such as .357 Magnum and the .44 Magnum as well as the extreme magnum calibers such as .454 Casull, .450 Extreme and .50 Action Express. A good all-around powder that will serve a wide range of high performance handgun applications.
- **4100** This is a slow burning, double base, ball-type handgun powder that was originally designed for the .410 shotgun. The powder is well suited for large capacity handgun cartridges like .44 Magnum, .454 Casull, .450 Extreme, .50 Action Express, etc. when maximum velocity is required (e.g., hunting, silhouette). The load data is limited so **No. 9** can be used as guideline and the charge increased by approximately 3%.

RIFLE PROPELLANTS

- 1680 An extremely fast burning, double base, ball-type rifle powder that is Accurate's fastest rifle powder. This powder suits some large capacity handgun cartridges like .50 Action Express, as well as low capacity rifle calibers such as the 7.62mmx39 and .22 Hornet. This powder is also well suited for light bullets in .222 Rem and .223 Rem and for intermediate type straight-walled calibers like the .449LW and .444 Marlin etc.
- **5744** An extremely fast burning, double base, extruded rifle powder. This unique powder can be used in both extreme magnum handgun and a wide range of rifle calibers. The powder is characterized by excellent ignitability and consistency over a very wide performance range. The ignitability coupled with the "bulkiness" makes this powder an excellent choice for use in reduced loads for many rifle calibers and in large capacity obsolete black powder calibers such as the .45–70Gov, .45–90/-110/-120 and the .50–90 through .50–120 Type calibers.
- **2015** A very fast burning, single base, extruded rifle powder. The powder was developed around the .223 Rem type calibers. Very popular in .22 and 6mm calibers especially the" PPC" and "BR" designated calibers. Works well in large bore calibers (e.g., .45–70 Gov, .458 Win Mag, and the old black powder .45 and .50 calibers) as it provides a well-balanced loading density which decreases powder position sensitivity.
- 2230 A very fast burning, double base, ball-type rifle powder. This versatile powder was designed around the .223 Rem caliber but can be used in many small and medium sized calibers including the .308 Win. It flows very well and is ideal for the shooter utilizing auto loading machines for Semi-auto rifles such as the AR15. Works well in large bore calibers (e.g., .45–70 Gov, .458 Win Mag, and the old black powder .45 and .50 calibers) as it provides a well-balanced loading density which decreases powder position sensitivity.
- **2460** A fast burning, double base, ball-type rifle powder that is a slower derivative of the **2230** powder. Is suitable for small and medium sized caliber applications but with slightly higher loading densities than **2230.** It provides an additional option to shooters in order to fine tune and optimize loads and combinations

with calibers ranging from the .223 Rem, .308 Win and for light bullets in .30–06Springfield. Within threshold limit for M1/M14 systems.

2495 A medium fast burning, single base, extruded rifle powder that was developed around the .308 Win. and can be used over a very wide range of calibers. It's extremely popular for use in the .308 Win and .30–06 Service shooting disciplines. This versatile powder has good ignition characteristics, and when combined with the progressive burn rate, can be used over a wide performance range while maintaining good consistency.

2520 A medium fast burning, double base, ball-type rifle powder that was designed around the .308Win. This powder is extremely popular with service shooters and is known as the "Camp Perry" powder. An excellent choice for use in the .308 Winchester and also the .30–06 Springfield. This versatile powder has excellent flow characteristics and is within the threshold limit for M1/M14 systems.

4064 A medium fast burning, single base, extruded rifle powder that is similar to IMR 4064 but with a short cut that provides for better flow. This versatile powder works well in calibers ranging from standard .30–06 Springfield to necked-down calibers such as .22–250, .220 Swift, 7x57 Mauser etc. Popular with service shooters, this powder still falls within the threshold limits for the M1 system, making it about the slowest extruded powder suitable for this application.

2700 A medium fast burning, double base, ball-type rifle powder that is ideally suited for medium capacity necked down calibers such as the .22–250 Remington, .220 Swift, .243 Winchester, .270 Winchester etc. This powder is suited for both medium- and over-bore calibers, making it very popular with varmint hunters. Will also flow well in auto-loaders and volumetric dispensing equipment.

4350 A medium slow burning, single base, extruded rifle powder that is very similar to IMR 4350. A very popular powder which can be used in a wide range of calibers from the standard .30–06 Springfield to "overbore" calibers such as 7mm Rem. Mag, .300 WSM and .300 Winchester Magnum etc. Excellent for the large capacity, large bore calibers like the .375 H & H providing a balance between ballistic performance and loading densities.

3100 A slow burning, single base, extruded rifle powder specifically designed for large capacity overbore magnum calibers such as the 7mm Rem Mag, .264 Win Mag, etc. It provides for high loading densities in these calibers and at full to slightly compressed loads in the medium sized overbore calibers (.243 Win and .270 Win). Will also work well in the new series of WSM and Remington SAUM calibers.

MAGPRO A slow burning, double base, ball-type rifle powder developed specifically for all the new Short Magnum calibers of both Winchester (WSM) and Remington (SAUM) except for .300 SAUM. This powder excels in the 7mm WSM as well as the .270 WSM and even derivatives of the wildcat 6.5 Short Action. Excellent in all overbore magnums such as the ULTRA magnums from Remington i.e. 7mm RUM, .338 RUM as well as the high performance .338 Lapua Magnum. Excellent flow in progressive auto-loaders and volumetric dispensing equipment. This is THE magnum rifle powder to have.

8700 An extremely slow burning, double base, ball-type rifle powder which is Accurate's slowest powder. It was originally developed for the .50 Browning (12.7mmx99 Nato). This powder delivers optimum performance in heavily necked down large capacity calibers such as the .257 Weatherby Magnum, .264 Win Mag and 7mm RUM. This powder is so slow that even at maximum and compressed loading densities, it is virtually impossible to cause any over pressure.

SHOTSHELL PROPELLANTS

NITRO 100 Accurate's fastest burning, double base, flake shotgun powder. Besides being a cost effective choice for all 12 gauge applications, Nitro 100 is also an ideal powder for low pressure/low loading density handgun cartridges such as target and Cowboy Action shooting. It is a robust powder which is very clean burning in all the mentioned applications.

SOLO 1000 An extremely fast burning, single base, flake shotgun powder. **Solo 1000** was the pioneer in the clean burning revolution and is an excellent choice for trap, sporting clays and skeet shooting. An ultra clean burning powder best suited for 12 gauge shotgun loads but which is also suited for target handgun loads in .45 ACP and Cowboy Action.

SOLO 1250 A fast burning, single base, flake shotgun powder. Works well with heavier shot loads in 12 gauge and for all shotshell applications through 28 gauge. **Solo 1250** is slightly faster burning than IMR's PB powder. Can also be loaded in some handgun loads for target and cowboy action.

DANGER!

SMOKELESS GUNPOWDER EXTREMELY FLAMMABLE

KEEP AWAY FROM HEAT, SPARKS OR OPEN FLAME STORE IN A COOL DRY PLACE

KEEP OUT OF THE REACH OF CHILDREN

PROPERTIES AND STORAGE OF SMOKELESS POWDER

Ammunition handloading has become increasingly popular in recent years. This leaflet discusses properties of smokeless powder and offers recommendations for its storage. This leaflet is intended to increase the knowledge of all concerned individuals and groups regarding smokeless powder. The statements and recommendations made are not intended to supersede local, state or Federal regulations. Proper authorities should be consulted on regulations for storage and use of smokeless powder in each specific community. A second leaflet entitled "SPORTING AMMUNITION PRIMERS: PROPERTIES, HANDLING, & STORAGE FOR HANDLOADING" supplements this leaflet on Smokeless Powders.

PROPERTIES OF SMOKELESS POWDER

Smokeless powders, or propellants, are essentially mixtures of chemicals designed to burn under controlled conditions at the proper rate to propel a projectile from a gun. Smokeless powders are made in three forms:

- 1. Thin, circular flakes or wafers
- 2. Small cylinders
- 3. Small spheres

Single-base smokeless powders derive their main source of energy from nitrocellulose.

The energy released from double-base smokeless powders is derived from both nitrocellulose and nitroglycerin.

All smokeless powders are extremely flammable; by design, they are intended to burn rapidly and vigorously when ignited.

Oxygen from the air is not necessary for the combustion of smokeless powders since they contain sufficient built-in oxygen to burn completely, even in an enclosed space such as the chamber of a firearm.

In effect, ignition occurs when the powder granules are heated above their ignition temperature. This can occur by exposing powder to:

- 1. A flame such as a match or primer flash.
- 2. An electrical spark or the sparks from welding, grinding, etc.
- 3. Heat from an electric hot plate or a fire directed against or near a closed container even if the powder itself is not exposed to the flame.

When smokeless powder burns, a great deal of gas at high temperature is formed. If the powder is confined, this gas will create pressure in the surrounding structure. The rate of gas generation is such, however, that the pressure can be kept at a low level if sufficient space is available or if the gas can escape.

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SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC. 555 DANBURY ROAD, WILTON, CT 06897

In this respect smokeless powder differs from blasting agents or high explosives such as dynamite or blasting gelatin, although smokeless powder may contain chemical ingredients common to some of these products.

High explosives such as dynamite are made to detonate, that is, to change from solid state to gaseous state with evolution of intense heat at such a rapid rate that shock waves are propagated through any medium in contact with them. Such shock waves exert pressure on anything they contact, and, as a matter of practical consideration, it is almost impossible to satisfactorily vent away the effects of a detonation involving any appreciable quantity of dynamite.

Smokeless powder differs considerably in its burning characteristics from common "black powder."

Black powder burns essentially at the same rate out in the open (unconfined) as when in a gun.

When ignited in an unconfined state, smokeless powder burns inefficiently with an orange colored flame. It produces a considerable amount of light brown noxious smelling smoke. It leaves a residue of ash and partially burned powder. THE FLAME IS HOT ENOUGH TO CAUSE SEVERE BURNS.

The opposite is true when it burns under pressure as in a cartridge fired in a gun. Then it produces very little smoke, a small glow, and leaves very little or no residue. The burning rate of smokeless powder increases with increased pressure.

If burning smokeless powder is confined, gas pressure will rise and eventually can cause the container to burst. Under such circumstances, the bursting of a strong container creates effects similar to an explosion.

For this reason, the Department of Transportation (formerly Interstate Commerce Commission) sets specifications for shipping containers for propellants and requires tests of loaded containers—under actual fire conditions—before approving them for use.

When smokeless powder in D.O.T. approved containers is ignited during such tests, container seams split open or lids pop off—to release gases and powder from confinement at low pressure.

HOW TO CHECK SMOKELESS POWDER FOR DETERIORATION

Although modern smokeless powders are basically free from deterioration under proper storage conditions, safe practices require a recognition of the signs of deterioration and its possible effects.

Powder deterioration can be checked by opening the cap on the container and smelling the contents. Powder undergoing deterioration has an irritating acidic odor. (Don't confuse this with common solvent odors such as alcohol, ether and acetone.)

Check to make certain that powder is not exposed to extreme heat as this may cause deterioration. Such exposure produces an acidity which accelerates further reaction and has been known, because of the heat generated by the reaction, to cause spontaneous combustion.

Never salvage powder from old cartridges and do not attempt to blend salvaged powder with new powder. Don't accumulate old powder stocks.

The best way to dispose of deteriorated smokeless powder is to burn it out in the open at an isolated location in small shallow piles (not over 1" deep). The quantity burned in any one pile should never exceed one pound. Use an ignition train of slow burning combustible material so that the person may retreat to a safe distance before powder is ignited.

CONSIDERATIONS FOR STORAGE OF SMOKELESS POWDER

Smokeless powder is intended to function by burning, so it must be protected against accidental exposure to flame, sparks or high temperatures.

For these reasons, it is desirable that storage enclosures be made of insulating materials to protect the powder from external heat sources.

Once smokeless powder begins to burn, it will normally continue to burn (and generate gas pressure) until it is consumed.

D.O.T. approved containers are constructed to open up at low internal pressures to avoid the effects normally produced by the rupture or bursting of a strong container.

Storage enclosures for smokeless powder should be constructed in a similar manner:

- 1. Of fire resistant and heat-insulating materials to protect contents from external heat.
- Sufficiently large to satisfactorily vent the gaseous products of combustion which would result if the quantity of smokeless powder within the enclosure accidentally ignited.

If a small, tightly enclosed storage enclosure is loaded to capacity with containers of smokeless powder the walls of the enclosure will expand or move outwards to release the gas pressure—if the powder in storage is accidentally ignited.

Under such conditions, the effects of the release of gas pressure are similar or identical to the effects produced by an explosion.

Hence only the smallest practical quantities of smokeless powder should be kept in storage, and then in strict compliance with all applicable regulations and recommendations of the National Fire Protection Association (reprinted at end of leaflet).

RECOMMENDATIONS FOR STORAGE OF SMOKELESS POWDER

STORE IN A COOL, DRY PLACE. Be sure the storage area is free from any possible sources of excess heat and is isolated from open flame, furnaces, hot water heaters, etc. Do not store smokeless powder where it will be exposed to the sun's rays. Avoid storage in areas where mechanical or electrical equipment is in operation. Restrict from the storage areas heat or sparks which may result from improper, defective or overloaded electrical circuits.

DO NOT STORE SMOKELESS POWDER IN THE SAME AREA WITH SOLVENTS, FLAMMABLE GASES OR HIGHLY COMBUSTIBLE MATERIALS.

STORE ONLY IN DEPARTMENT OF TRANSPORTATION APPROVED CONTAINERS.

Do not transfer the powder from an approved container into one which is not approved.

DO NOT SMOKE IN AREAS WHERE POWDER IS STORED OR USED. Place appropriate "No Smoking" signs in these areas.

DO NOT SUBJECT THE STORAGE CABINETS TO CLOSE CONFINEMENT.

STORAGE CABINETS SHOULD BE CONSTRUCTED OF INSULATING MATERIALS AND WITH A WEAK WALL, SEAMS OR JOINTS TO PROVIDE AN EASY MEANS OF SELF-VENTING.

DO NOT KEEP OLD OR SALVAGED POWDERS. Check old powders for deterioration regularly. Destroy deteriorated powders immediately.

OBEY ALL REGULATIONS REGARDING QUANTITY AND METHODS OF STORING. Do not store all your powders in one place. If you can, maintain separate storage locations. Many small containers are safer than one or more large containers.

KEEP YOUR STORAGE AND USE AREA CLEAN. Clean up spilled powder promptly. Make sure the surrounding area is free of trash or other readily combustible materials.

KNOW THE FOLLOWING RECOMMENDATIONS ON STORAGE AND HANDLING ISSUED BY THE NATIONAL FIRE PROTECTION ASSOCIATION, BATTERY MARCH PARK, QUINCY, MASS. 02269 AND REPRINTED WITH THEIR PERMISSION: CODE FOR THE MANUFACTURE, TRANSPORTATION STORAGE, AND USE OF EXPLOSIVE MATERIALS NFPA NO. 495-1992.

CHAPER 10. SMALL ARMS AMMUNITION AND PRIMERS, SMOKELESS PROPELLANTS AND BLACK POWDER PROPELLANTS

10-3. SMOKELESS PROPELLANTS

- **10–3.1** Quantities of smokeless propellants not exceeding 25 lb (11.3 kg) in shipping containers approved by the U.S. Department of Transportation may be transported in a private vehicle.
- 10-3.2 Quantities of smokeless propellants exceeding of 25 lb (11.3 kg) but not exceeding 50 lb (22.7 kg), transported in a private vehicle, shall be transported in a portable magazine having wood walls of at least 1-inch (25.4 mm) nominal thickness.

- 10-3.3 Transportation of more than 50 lb (22.7 kg) of smokeless propellants in a private vehicle is prohibited.
- 10-3.4 Commercial shipments of smokeless propellants in quantities not exceeding 100 lb (45.4 kg) are classified for transportation purposes as flammable solids when packaged according to U.S. Department of Transportation Hazardous Materials Regulations (Title 49 Code of Federal Regulations, Part 173.197a), and shall be transported accordingly.
- 10-3.5 Commercial shipments of smokeless propellants exceeding 100 lb (45.4 kg) or not packaged in accordance with the regulations cited in 10-3.4 shall be transported according to U.S. Department of Transportation regulations for Class B propellant explosives.
- **10–3.6** Smokeless propellants shall be stored in shipping containers specified by the U.S. Department of Transportation Hazardous Materials Regulations.
- 10-3.7 Smokeless propellants intended for personal use in quantities not exceeding 20 lb (9.1 kg) may be stored in original containers in residences. Quantities exceeding 20 lb (9.1 kg) but not exceeding 50 lb (22.7 kg), may be stored in residences if kept in a wooden box or cabinet having walls of at least 1-inch (25.4 mm) nominal thickness.
- 10-3.8 Not more than 20 lb (9.1 kg) of smokeless propellants, in containers of 1 lb (0.45 kg) maximum capacity, shall be displayed in commercial establishments.
- 10-3.9 Commercial stocks of smokeless propellants shall be stored as follows:
 - a. Quantities exceeding 20 lb (9.1 kg), but not exceeding 100 lb (45.4 kg), shall be stored in portable wooden boxes having walls of at least 1-in. (25.4 mm) thickness.
 - b. Quantities exceeding 100 lb (45.4 kg), but not exceeding 800 lb (363 kg), shall be stored in nonportable storage cabinets having walls of at least 1-in. (25.4 mm) thickness. Not more than 400 lb (181 kg) may be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 ft (7.63 m) or by a fire partition having a fire resistance of at least 1 hr.
 - c. Quantities exceeding 800 lb (363 kg), but not exceeding 5,000 lb (2268 kg), may be stored in a building if the following requirements are met:
 - 1. The warehouse or storage room shall not be accessible to unauthorized personnel.
 - Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least 1-in. (25.4 mm) thick and having shelves with not more than a 3 ft separation between shelves.
 - 3. No more than 400 lb (181 kg) shall be stored in any one cabinet.
 - Cabinets shall be located against walls of the storage room or warehouse with at least 40 ft (12.2 m) between cabinets.
 - 5. Separation between cabinets may be reduced to 20 ft (6.1 m) if barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall extend at least 10 ft (3 m) outward, shall be firmly attached to the wall, and shall be constructed of ¼-in. (6.4 mm) boiler plate, 2-in. (51 mm) thick wood, brick, or concrete block.
 - 6. Smokeless propellant shall be separated from materials classified by the U.S. Department of Transportation as flammable liquids, flammable solids, and oxidizing materials by a distance of 25 ft (7.63 m) or by a fire partition having a fire-resistance of at least 1 hour.
 - The building shall be protected by an automatic sprinkler system installed according to NFPA No. 13, Standard for the Installation of Sprinkler Systems.
 - d. Smokeless propellants not stored according to (a), (b), and (c) above shall be stored in a type 4 magazine constructed and located according to Chapter 6.

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HANDGUN DATA

FOR MORE COMPLETE LOADING INFORMATION, BUY ACCURATE'S RELOADING MANUAL, BOOK TWO. SEE INSIDE BACK COVER FOR DETAILS.

П
A
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G
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Gun DOUGLAS Barrel length 14" Gun DOUGLAS Barrel le Primer CCI 400 Case REM Primer CCI 200 Case	ngth 14" REM
Case	
Powder Start Chg. Velocity Max. Chg. Velocity Powder Start Chg. Velocity Max.	Chg. Velocity
(L)145 RCBS OAL = 2.500" HDY 139 SP OAL = 2.765"	
5744 18.0 1721 20.0 1871 2230 32.9 2139 36	.5 2325
1680 20.3 1751 22.5 1903 2460 33.3 2160 37	
2230	.5 2335
2520 25.7 1871 28.5 2034 NOS 150 BT OAL = 2.650"	
2230 32.0 2065 35	
SRA 100 HP OAL = 2.430" 2460 32.4 2068 36 5744 20.7 2134 23.0 2320 2520 32.4 2030 36	
1690 25.2 2240 28.0 2435	.0 2207
2015 25.2 1964 28.0 2135 SRA 168 HPBT OAL = 2.650"	
2230 270 2065 200 2245 2230 31.1 1932 34	
2460 27.0 2050 30.0 2228 2460 31.5 1953 35	
2520 25.2 1867 28.0 2029 ²⁵²⁰ 52.0 1901 55	.5 2132
SRA 140 SBT OAL = 2.540"	
5744 18.5 1783 20.5 1938 7mm BR REMINGTON	
1080 22.1 1849 24.5 2010 Com DOUGLAG Boundle	nath 15"
2015 24.3 1893 27.0 2058 Gun DOUGLAS Barrel le 2230 25.7 1934 28.5 2102 Primer REM 7 ¹ / ₂ Case	REM
2460 26.1 1940 29.0 2109 Powder Start Chg. Velocity Max.	
0500 040 1700 075 1050	ong. velocity
2020 24.8 1790 27.5 1952 HDY 120 SSP OAL = 2.225" HDY 162 HPBT OAL = 2.640" 2015 26.1 2175 29	.0 2364
5744 16.7 1555 18.5 1690 2230 27.9 2171 31	
1680 20.3 1707 22.5 1855 2460 28.4 2184 31	
2015 23.4 1817 26.0 1975 2520 28.8 2205 32	
2230 24.3 1807 27.0 1964 SRA 150 SBT OAL = 2.255"	
2460 24.8 1802 27.5 1959 2015 24.8 1972 27	.5 2144
2520 24.8 1731 27.5 1882 2230 26.1 1953 29	.0 2123
REM 175 PSP OAL = 2.495" 2460 26.6 1978 29	
5744 16.2 1493 18.0 1623 2520 27.5 2004 30	.5 2178
1680 19.4 1499 21.5 1629 SRA 168 HPBT OAL = 2.310"	
2020 242 1644 270 1707 2010 23.4 1802 20	
0400 040 4050 070 4000 2230 23.2 1023 20	
2460 24.3 1638 27.0 1802 2460 25.7 1857 28 2520 24.8 1629 27.5 1771 2520 27.0 1911 30	
2320 27.0 1911 30	.0 2011

TECH LINE: 931-729-4207

HAN	IDGUN I	DATA		1	5		HAN	DGUN D	ATA
.30 HE	RRETT				7.62 x 2	5mm TOKA	REV (CZ-	52 only) (C	ONT'D)
Gun	DOUGLAS		arrel length	14"	<u>Powder</u>	Start Chg.		Max. Chg.	<u>Velocity</u>
Primer Powder	REM 9½ Start Chg.		ise May Cho	REM Velocity	SPR 110 No. 2	RN OAL 5.6	= 1.300" 1331	6.2	1447
	SSP OAL		max. ong.	relocity	No. 5	7.2	1444	8.0	1570
2015	27.0	1986	30.0	2159	No. 7	8.6	1490	9.5	1620
2230 2460	28.8 29.3	1955 1956	32.0 32.5	2125 2126	No. 9	10.5	1553	11.7	1688
HDY 150		= 2.385"	02.0	2120					
2015	24.8	1791	27.5	1947		WINCHES			4.411
2230 2460	27.0 27.5	1803 1821	30.0 30.5	1960 1979	Gun Primer	T/C Conter CCI 200		arrel length ase	14" FED
	SBT OAL				Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
2015 2230	23.4 24.8	1706 1652	26.0 27.5	1854 1796	HDY 110		= 2.440"	05.5	2222
2460	25.2	1685	28.0	1831	2015 2230	32.0 32.4	2206 2153	35.5 36.0	2398 2340
					2495	33.3	2036	37.0	2213
200 W	HISPER				2460 2520	33.3 34.2	2179 2177	37.0 38.0	2369 2366
Gun	WISEMAN	Ra	arrel length	16"	4064	35.1	2005	39.0	2179
Primer	REM 7 ¹ / ₂		ise	REM	2700	36.0	2107	40.0	2290
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	HDY 130 2015	SSP OAL	= 2.625" 1995	22.0	2168
NOS 125		= 2.050"			2230	28.8 30.6	1989	32.0 34.0	2162
No. 2* No. 5*	N/A N/A	N/A N/A	4.8 5.6	1095 1054	2495	29.7	1813	33.0	1971
No. 7*	N/A	N/A	6.2	1071	2460 2520	31.5 33.3	1992 2088	35.0 37.0	2165 2270
No. 9	12.3	1788	13.7	1943	4064	34.2	2053	38.0	2231
1680 (C) 5744 (C)	16.7 16.2	1762 1811	18.5 18.0	1915 1969	2700	34.2	1935	38.0	2103
٠,	HPBT OAL				SPR 150 2015	26.1	= 2.540" 1775	29.0	1929
No. 5*	N/A	N/A	6.8	1079	2230	28.5	1840	31.7	2000
No. 7*	N/A	N/A	7.4	1086	2495	27.5	1680	30.5	1826
No. 9* No. 9	N/A 10.2	N/A 1394	7.9 11.3	1080 1515	2460	29.3	1854	32.5	2015
1680 (C)	13.5	1438	15.0	1563	2520 4064	30.2 29.7	1882 1697	33.5 33.0	2046 1845
5744 (C)	12.2	1360	13.5	1478	2700	33.3	1875	37.0	2038
SRA 220 No. 5*	HPBT OAL N/A	= 2.265" N/A	6.3	1062					
No. 5 No. 7*	N/A N/A	N/A N/A	6.3 7.5	1062	22 6 5	& W LONG	2		
No. 9	8.6	1125	9.5	1223	Gun	DOUGLAS		arrel length	6"
1680 (C) 5744 (C)	10.4 9.9	1034 1087	11.5 11.0	1124 1181	Primer	FED 100		ase	REM
- (-)						Start Chg.			<u>Velocity</u>
7 60 v	25mm TC)K V DE/	(C7 E2 a=1	\.\\	(L)HDY 9 No. 2	90 HBWC 1.8	OAL = 0.5 723	930" 2.0	786
7.02 X Gun	25mm TC DOUGLAS		/ (CZ-52 on: length		SRA 90		= 1.190"	2.0	700
Primer	CCI 500	Case	St	arline	No. 2	2.3	815	2.5	886
	Start Chg.		Max. Chg.	<u>Velocity</u>					
SRA 85 I		= 1.316"	6 5	1640					
No. 2 No. 5	5.9 7.7	1509 1625	6.5 8.5	1640 1766					
No. 7	9.2	1631	10.2	1773					
No. 9	11.8	1814	13.1	1972					

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. *Subsonic loads; do not reduce loads. (C) Denotes a compressed load for maximum charge.

1AH	NDGUN I	ATA		1	6		HAN	DGUN D	ATA
.32 H	& R MAGN	NUM			.380 A	UTO			
Gun Primer	DOUGLAS CCI 500		irrel length ise	10" FED	Gun Primer	OBERMEYI CCI 500		arrel length ase	3" FED
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
(L) 100 S No. 2 No. 5	3.2 4.2	= 1.310" 1067 1160	3.6 4.7	1160 1261	(L) 100 F No. 2 No. 5	3.2 4.1	= 0.950" 868 848	3.6 4.5	943 922
HDY 85 No. 2 No. 5	JHP OAL 3.6 4.8	= 1.325" 1167 1229	4.0 5.3	1269 1336	HDY 90 No. 2 No. 5	3.3 4.3	= 0.960" 856 846	3.7 4.8	930 920
SPR 100 No. 2 No. 5	3.3 4.5	= 1.335" 1054 1126	3.7 5.0	1146 1224	HDY 100 No. 2 No. 5	3.1 4.4	= 0.975" 730 823	3.4 4.9	793 895
.32/20 Gun Primer	WINCHES Ruger B'ha	wk Ba	arrel length	6½" REM	9mm L Gun Primer	UGER OBERMEYI		arrel length	4" FED
	Start Chg.					Start Chg.			
(L) 100 S No. 5 No. 7	5WC OAL 4.3 5.5	= 1.585" 796 850	4.8 6.1	865 924	(L) 115 S No. 2 No. 5	5WC OAL 4.4 5.7	= 1.110" 1054 1087	4.9 6.3	1146 1182
5744	8.4	828	9.3	900	No. 7	7.8	1127	8.7	1225
SRA 90 No. 5 No. 7 5744	4.5 5.5 8.7	= 1.565" 834 862 846	5.0 6.1 9.7	906 937 920	(L) 145 No. 2 No. 5 No. 7	3.3 4.6 6.5	= 1.140" 822 905 968	3.7 5.1 7.2	893 984 1052
HDY 100 No. 5 No. 7 5744	XTP OAL 4.2 5.2 8.6	= 1.565" 776 816 856	4.7 5.8 9.5	844 887 930	HDY 115 No. 2 No. 5 No. 7	FMJ OAL 4.0 6.3 7.9	= 1.095" 1005 1097 1100	4.4 7.0 8.8	1092 1192 1196
					HDY 124		= 1.095"		
.32/20	CONTEN	DER ON	ILY		No. 2 No. 5	3.7 5.8	972 1104	4.1 6.4	1057 1200
Gun	DOUGLAS		rrel length	14"	No. 7	7.2	1073	8.0	1166
Primer	CCI 400		ISE	REM		'TMJ OAL			
(L) 100 S	Start Chg.	= 1.585"	wax. Cng.	velocity	No. 2 No. 5	3.6 4.8	817 912	4.0 5.3	888 991
No. 5	5.4	1235	6.0	1342	No. 7	6.5	963	7.2	1047
No. 7 SRA 90 No. 5 No. 7	6.3 JHC OAL 5.6 7.0	1219 = 1.565" 1265 1344	7.0 6.2 7.8	1325 1375 1461	G	ome high per llock and Sig/s ne faster powd	Sauer) may		
HDY 100	XTP OAL	= 1.585"			20 61	IDED ALIT	∩ . D		
No. 5 No. 7	5.4 6.7	1224 1256	6.0 7.4	1330 1365	.30 30 Gun	IPER AUT WILSON		arrel length	5"
NU. /	0.7	1200	1.4	1303	Primer	CCI 500		ise	PMC
						Start Chg.		Max. Chg.	<u>Velocity</u>
					(L) 115 S		= 1.285"	4.0	11.00
					No. 2 No. 5	4.3 6.8	1042 1166	4.8 7.6	1133 1267
					No. 7 No. 9	8.8 11.3	1214 1264	9.8 12.5	1320 1374

HAN	IDGUN E	DATA		1	7		HAN	DGUN D	ATA
.38 SUP	ER AUTO +	P (CONT	''D)		.357 M	IAGNUM			
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	Gun	TEST BARF		rrel length	8"
(L) 160 F		= 1.250"			Primer	CCI 500		New Cha	HDY
No. 2 No. 5	4.1 5.4	943 964	4.5 6.0	1025 1048		Start Chg.		wax. Cng.	velocity
No. 7	7.2	1026	8.0	1115	(L) 158 S No. 2	5.2	= 1.580" 1057	5.8	1149
No. 9	8.6	1027	9.5	1116	No. 5	8.1	1246	9.0	1354
HDY 115	FMJ OAL	= 1.240"			No. 7	9.9	1300	11.0	1413
No. 2	5.1	1104	5.7	1200	No. 9	12.2	1379	13.5	1499
No. 5	7.5	1215	8.3	1321	(L) 174 S		= 1.660"		
No. 7	9.3	1233	10.3	1340	5744	13.1	1252	14.5	1361
No. 9	11.7	1283	13.0	1395	` '	FNGC OAL			
IMI 124 F	-MJ OAL 4.9	= 1.245" 1070	E 1	1160	No. 2 No. 5	5.2 8.2	1081 1282	5.8 9.1	1175 1394
No. 2 No. 5	4.9 6.8	1132	5.4 7.6	1163 1230	No. 7	9.4	1294	10.4	1406
No. 7	8.6	1162	9.6	1263	No. 9	12.4	1414	13.8	1537
No. 9	11.3	1238	12.5	1346	4100	12.9	1451	14.3	1577
HDY 158	JHP OAL	= 1.250"			(L) 200 L	NGC OAL	= 1.625"		
No. 2	3.9	892	4.3	970	No. 2	4.9	995	5.4	1081
No. 5	5.6	944	6.2	1026	No. 5	7.7	1201 1218	8.6	1305 1324
No. 7	7.2	979	8.0	1064	No. 7 No. 9	8.9 11.3	1216	9.9 12.5	1407
No. 9	8.7	1031	9.7	1121	4100	11.7	1333	13.0	1449
					SPR 110	JHP OAL	= 1.575"		
.38 SP	ECIAL				No. 2	7.6	1542	8.4	1676
Gun	S&W MODE	EL 14 Ba	arrel length	83/8"	No. 5	10.8	1693	12.0	1840
Primer	CCI 500	Ca	ase	HDY	No. 7 No. 9	12.6	1702	14.0	1850
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	4100	16.6 19.6	1846 1944	18.4 21.8	2006 2113
(L) 148 H	IBWC OAL	= 1.152"				XTP OAL		21.0	2110
N100	2.5	811	2.8	882	No. 2	7.2	1432	8.0	1557
S1000	2.5	770	2.8	837	No. 5	10.4	1590	11.5	1728
No. 2 No. 5	2.6 3.6	662 742	2.9 4.0	720 807	No. 7	11.9	1596	13.2	1735
			4.0	007	No. 9 4100	15.3 17.3	1722 1777	17.0 19.2	1872 1932
(L) 158 S N100	3.0	= 1.481" 826	3.3	898				13.2	1932
S1000	3.1	788	3.4	857	No. 2	SXTP OAL 5.9	1159	6.6	1260
No. 2	3.6	799	4.0	868	No. 5	8.8	1337	9.8	1453
No. 5	5.3	865	5.9	940	No. 7	10.3	1494	11.4	1624
HDY 110	XTP OAL	= 1.435"			No. 9	13.5	1502	15.0	1633
N100	4.0	1061	4.4	1153	4100	14.2 13.1	1527	15.8	1660
S1000	4.0	1006	4.4	1094	5744		1259	14.5	1368
No. 2 No. 5	5.0 6.6	996 1003	5.6 7.3	1083 1090	HDY 180 No. 2	5.4	= 1.575" 1025	6.0	1114
			7.5	1030	No. 5	8.3	1220	9.2	1326
N100	JHP OAL 3.7	949	4.1	1031	No. 7	9.3	1223	10.3	1329
S1000	3.7	929	4.1	1010	No. 9	11.7	1322	13.0	1437
No. 2	4.8	911	5.3	990	4100	12.1	1352	13.4	1470
No. 5	6.1	791	6.8	860	5744	11.7	1100	13.0	1196
HDY 158	XTP OAL	= 1.445"				xpect up to 250		econd lower ve	elocity with
N100	2.9	723	3.2	786	Ve	ented 4" barrel	l.		
S1000	3.1	734	3.4	798					
No. 2	3.6	696 774	4.0	756					
No. 5	5.2	774	5.8	841	ı				

HANDGUN	DATA	1	8 HANDGUN DATA
.357 SIG			.38/40 WINCHESTER
Gun HS PREC	•		Gun ROCK Barrel length 6½"
Primer FED 100	Case	FED	Primer WLP Case WIN
	y. Velocity Max. Chg. L = 1.140"	velocity	Powder Start Chg. Velocity Max. Chg. Velocity (L) 155 RN OAL = 1.585"
(L) 115 SWC OA No. 2 5.6	L = 1.140" 1149 6.2	1249	(L) 155 RN OAL = 1.585" 5744 14.9 932 16.5 1013
No. 5 8.1	1213 9.0	1319	(L) 185 RN OAL = 1.580"
No. 7 9.9	1236 11.0 1316 13.5	1344 1430	5744 13.1 828 14.5 900
No. 9 12.2 (L) 147 RN OA	1316 13.5 L = 1.140"	1430	SRA 150 JHC OAL = 1.575"
No. 2 4.2	965 4.7	1049	5744 15.8 956 17.5 1039
No. 5 6.8	1076 7.5	1170	SRA 180 JHC OAL = 1.585" 5744 14.9 884 16.5 961
No. 7 8.6 No. 9 9.5	1121 9.6 1076 10.5	1218 1170	5744 14.9 884 16.5 961
No. 9 9.5 SPR 88 JHP OA		1170	
No. 2 7.1	1421 7.9	1545	.40 S&W (WARNING: See page 6.)
No. 5 10.0	1487 11.1	1616	Gun HS PRECISION Barrel length 4"
No. 7 11.8 No. 9 13.5	1473 13.1 1421 15.0	1601 1545	Primer CCI 500 Case HDY
HDY 115 XTP OA		1343	Powder Start Chg. Velocity Max. Chg. Velocity
No. 2 5.8	1174 6.4	1276	(L) 155 SWC OAL = 1.130" No. 2 5.7 1027 6.3 1116
No. 5 8.5	1246 9.4	1354	No. 5 6.8 1065 7.5 1158
No. 7 10.2 No. 9 12.2	1274 11.3 1319 13.5	1385 1434	No. 7 8.7 1054 9.7 1146
No. 9 12.2 HDY 124 XTP OA		1434	No. 9 10.8 1051 12.0 1142
No. 2 5.4	1115 6.0	1212	(L) 175 SWC OAL = 1.115" No. 2 4.8 897 5.3 975
No. 5 8.3	1244 9.2	1325	No. 5 5.5 907 6.1 986
No. 7 9.9	1214 11.0	1320	No. 7 7.6 933 8.4 1014
No. 9 11.7	1276 13.0	1387	No. 9 9.2 918 10.2 998
HDY 147 XTP OA No. 2 4.8	L = 1.140" 976 5.3	1061	NOS 135 JHP OAL = 1.125" No. 2 6.8 1147 7.6 1247
No. 5 7.1	1066 7.9	1159	No. 5 8.4 1257 9.3 1266
No. 7 8.3	1067 9.2	1160	No. 7 10.1 1138 11.2 1237
No. 9 9.5	1065 10.5	1158	NOS 150 JHP OAL = 1.120"
			No. 2 6.3 1063 7.0 1155
.357 REMINGT	ON MAXIMUM		No. 5 7.5 1076 8.3 1170 No. 7 9.2 1045 10.2 1136
Gun DOUGLA	·	14"	SRA 165 JHP OAL = 1.135"
Primer CCI BR 4		REM	N100 3.7 890 4.1 967
	 Velocity Max. Chg. 	<u>Velocity</u>	No. 2 5.4 955 6.0 1038
(L) 210 RNGC OA		4540	No. 5 6.9 968 7.7 1052 No. 7 8.5 983 9.4 1069
5744 15.3	1397 17.0	1518	No. 9 10.8 996 12.0 1083
NOS 158 JHP OA 5744 18.9	L = 1.905" 1679 21.0	1825	HDY 180 XTP OAL = 1.135"
SRA 170 SIL OA		1020	No. 2 5.0 890 5.6 967
5744 18.5	1630 20.5	1772	No. 5 5.9 888 6.6 965 No. 7 7.7 900 8.5 978
SPR 200 TMJ OA			No. 9 9.9 937 11.0 1019
5744 16.2	1377 18.0	1497	

HAN	IDGUN I	DATA		1	9		HAN	DGUN D	ATA
10mm					.41 REN	IINGTON MA			
Gun	HS PRECIS	ION Ba	rrel length	5"		Start Chg.		•	Velocity
Primer	CCI 300		ise	HDY		XTP OAL			
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	No. 2	8.6	1145	9.5	1245
(L) 145 F		= 1.250"			No. 5 No. 7	10.4 12.8	1216 1269	11.5 14.2	1322 1379
No. 2 No. 5	6.8 8.7	1190 1244	7.5 9.7	1293 1352	No. 7	16.2	1399	18.0	1521
No. 7	10.8	1258	12.0	1367	5744	18.5	1220	20.5	1326
No. 9	13.5	1308	15.0	1422					
	SWC OAL				11 60	ECIAL			
No. 2	6.0	1074	6.7	1167	Gun	DOUGLAS	R	arrel length	71/2"
No. 5 No. 7	7.5 9.4	1073 1103	8.3 10.4	1166 1199	Primer	CCI 300		arrer leligili ase	WIN
No. 9	12.2	1182	13.6	1285	_	Start Chg.			
NOS 135	JHP OAL	= 1.250"			(L) 245 I		= 1.600"	<u></u>	
No. 2	8.2	1328	9.1	1444	N100	3.4	692	3.8	752
No. 5 No. 7	10.3 12.2	1383 1358	11.4 13.6	1503 1476	S1000	4.1	728	4.5	791
No. 7	15.8	1386	17.5	1507	No. 2 No. 5	4.2 6.1	753 791	4.7 6.8	819 860
	JHP OAL					SWC OAL			000
No. 2	7.2	1192	8.0	1296	5744	11.3	678	12.5	737
No. 5 No. 7	9.0	1227	10.0	1334	IMI 240	JHP OAL	= 1.485"		
No. 7 No. 9	11.4 14.3	1269 1301	12.7 15.9	1379 1414	N100	3.4	536	3.8	583
	JHP OAL		10.0	1717	S1000	3.6	540	4.0	587
No. 2	6.9	1122	7.7	1220	No. 2 No. 5	4.1 5.9	556 672	4.5 6.5	604 730
No. 5	8.7	1173	9.7	1275	140. 5	0.0	012	0.5	700
No. 7	10.8	1201	12.0	1305					
No. 9	13.5 XTP OAL	1234	15.0	1341		WINCHES			
No. 2	5.7	958	6.3	1041	Gun	DOUGLAS		arrel length	
No. 5	7.0	981	7.8	1066	Primer			ase	REM
No. 7	8.8	1004	9.8	1091		Start Chg.		Max. Chg.	Velocity
No. 9	11.3	1076	12.5	1170	(L) 200 5744	FN OAL 15.3	= 1.580" 952	17.0	1035
					•,	10.0	002	17.0	1000
	MINGTON				44.55	LUNCTON			
Gun Primer	WILSON CCI 300		irrel length	9½" WIN	.44 KE Gun	MINGTON			h 7 ¹ /2"
	Start Chg.					CCI 300		Barrel lengti Case	n 772 WIN
	SWC OAL		wax. City.	velocity		Start Chg.			
No. 2	8.3	1210	9.2	1315		SWC OAL			
No. 5	11.3	1321	12.5	1436	No. 2	9.0	1178	10.0	1280
No. 7		1327	14.5	1442	No. 5	12.6			1400
No. 9 5744	16.2 19.4	1455 1317	18.0 21.5	1582 1431	No. 7 No. 9	15.8 19.5	1341 1426	17.5 21.7	1458 1550
	JHP OAL		21.3	1451	5744	21.6	1330	24.0	1446
No. 2	9.0	1335	10.0	1451		SSK OAL			
No. 5	10.8	1374	12.0	1493	No. 2	8.6	1047	9.5	1138
No. 7	14.0	1431	15.5	1555	No. 5	10.4	1049	11.6	1140
No. 9 5744	17.7 21.6	1569 1451	19.7 24.0	1705 1577	No. 7 No. 9	13.5 16.7	1145 1214	15.0 18.5	1245 1320
							.=17		.020

HANDGUN DATA		2	20		HAN	DGUN D	ATA
.44 REMINGTON MAGNUM (CONT'D)		.45 ACP (CONT'D)			
Powder Start Chg. Velocity	Max. Chg.	<u>Velocity</u>	Powder S	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
No. 2 10.0 1328 No. 5 14.8 1486 No. 7 18.5 1570		1444 1615 1707	HDY 200 X N100 S1000 No. 2 No. 5	_	-	4.8 5.8 6.5 9.7	873 914 963 1050
NOS 200 JHP OAL = 1.595 No. 2 9.9 1235 No. 5 14.2 1409 No. 7 16.8 1415 No. 9 22.5 1542 RAN 240 FN OAL = 1.575"		1342 1532 1538 1676	SRA 230 F N100 S1000 No. 2 No. 5			4.5 5.5 6.1 8.7	825 848 874 927
No. 2 9.3 1161 No. 5 12.6 1260 No. 7 15.1 1322 No. 9 18.0 1386 4100 20.3 1414	10.3 14.0 16.8 20.0 22.5	1262 1370 1437 1507 1537		.T DOUGLAS DCI 300		arrel length	7 ¹ /2" WIN
No. 2 9.7 1125 No. 5 12.2 1219 No. 7 14.0 1227 No. 9 16.7 1252 4100 18.5 1293	10.8 13.5 15.6 18.5 20.5	1223 1325 1334 1361 1405	Powder 5 (L) 225 FN N100 S1000 No. 2 No. 5	_	Velocity = 1.620" 825 836 803 950	5.9 6.5 6.1 12.1	897 909 873 1033
NO. 2 8.8 1019 No. 5 11.7 1122 No. 7 13.1 1095 No. 9 15.9 1172 5744 18.0 1096	9.8 13.0 14.5 17.7 20.0	1108 1220 1190 1274 1191	(L) 240 SW N100 S1000 No. 2 No. 5 5744		= 1.570" 826 783 777 918 882	5.7 6.3 6.0 11.3 18.5	898 851 845 998 959
	arrel length ase <u>Max. Chg.</u>	5" REM <u>Velocity</u>	(L) 255 SW N100 S1000 No. 2 No. 5 5744	5.0 5.2 5.3 9.4 16.0	= 1.600" 799 742 748 884 791	5.5 5.8 5.9 10.4 17.8	868 807 813 961 860
(L) 155 SWC OAL = 1.240" N100 5.0 1000 S1000 5.9 1076 No. 2 6.8 1108 No. 5 9.0 1094 (L) 230 RN OAL = 1.230"	5.5 6.5 7.5 10.0	1087 1170 1204 1189	SRA 185 J N100 S1000 No. 5 5744			6.8 7.6 12.0 20.5	993 1027 1075 1078
N100 4.1 767 S1000 4.6 826 No. 2 5.0 800 No. 5 7.7 891	4.5 5.1 5.6 8.5	834 898 870 968	HDY 200 X N100 S1000 No. 5	5.8 6.3 10.4	878 857 949	6.4 7.0 11.5	954 932 1032
N100 4.8 880 S1000 5.2 914 No. 2 6.8 991 No. 5 9.2 1014	5.3 5.8 7.5 10.2	957 993 1077 1102	SRA 240 J N100 S1000 No. 5 5744	5.0 5.4 9.5 16.7	= 1.590" 771 714 892 883	5.6 6.0 10.5 18.5	838 776 970 960
			SPR 260 J N100 S1000 No. 5	4.8 5.2 9.5	= 1.600" 671 639 701	5.3 5.8 10.5	729 695 762

HAN	IDGUN [DATA		2	1		HAN	DGUN D	ATA
	LT—HIGH		SURE LO	ADS	.50 AC	TION EX			
	UGER,T/0				Gun	DESERT E		arrel length	6"
Gun	HS PRECIS	ION Ba	rrel length	7"	Primer	CCI 350		ase	SPR
Primer	CCI 300		ise	WIN				Max. Chg.	Velocity
	Start Chg.	_	Max. Chg.	Velocity	SPR 325 No. 9	U-C OAL 21.4	= 1.575" 1147	23.8	1247
(L) 325 F No. 7	*NGC OAL 13.1	= 1.585" 1055	14.6	1147	1680	34.0	1201	37.8	1305
No. 9	15.3	1097	17.0	1192					
4100	17.7	1154	19.7	1254					
	NGC OAL		40.0	4000					
No. 7 No. 9	12.2 14.6	983 1038	13.6 16.2	1068 1128					
4100	15.8	1030	17.5	1165					
	JHC OAL								
No. 7	16.0	1252	17.8	1361					
No. 9 4100	18.5 22.3	1280 1374	20.6 24.8	1391 1494					
	JHP OAL		24.0	1434					
No. 7	15.6	1213	17.3	1319					
No. 9	18.2	1262	20.2	1372					
4100	21.6	1335	24.0	1451					
SPR 300		= 1.595"	40.0	4000					
No. 7 No. 9	14.6 16.9	1122 1163	16.2 18.8	1220 1264					
4100	18.0	1151	20.0	1251					
454 C	ASULL								
Gun	TEST BAR	RFI Ra	rrel length	71/2"					
Primer	CCI 400		ise	FA					
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>					
SRA 240	JHP OAL								
No. 9	25.2	1613	28.0	1753					
5744 1680	31.5 32.4	1558 1566	35.0 36.0	1693 1702					
	JHP OAL		00.0	1702					
No. 9	24.1	1524	26.8	1657					
5744	30.6	1553	34.0	1688					
1680	31.5	1514	35.0	1646					
HDY 300 No. 9	XTP OAL 23.4	= 1.765" 1493	26.0	1623					
5744	28.8	1444	32.0	1570					
1680	30.2	1466	33.5	1594					

TECH LINE: 931-729-4207

COWBOY ACTION SHOOTING

This relatively new shooting sport is enjoying ever increasing popularity. As the name implies, cowboy action shooting involves a less formal (read, more fun) combination of rifle, shotgun and handgun competition. Typically both male and female participants don Old West-style costumes and use original or replica blackpowder-style firearms. Cowboy action shooting has had a definite impact on the world of shooting and reloading.

From our viewpoint as a propellant supplier the resurgence of several old, originally black powder, cartridges created a challenging situation. Firearms made during the original cowboy era fired cartridges designed for black powder, which was the only propellant available 125 years ago. These older cartridges present a special set of problems when loaded with modern smokeless propellants. They are of a relatively high case capacity, even with modern solid head case design, because they were originally developed to use black powder. We are also restricted to low chamber pressures because of the firearms that they are chambered in. Even modern replicas, made of newer and better steels, are still true to the original designs and the low pressure limits must still be observed in the interest of shooter safety and longevity of the firearm. Those firearms originally built for black powder are probably best loaded with black powder, as the steel used then is inferior to that used in later production and the current replicas.

As we developed data for these cartridges we paid particular attention to propellant selection in balancing the large case capacity with the low pressure limit in order to achieve consistent ignition and good accuracy. The sport of Cowboy Shooting emphasizes low velocity and low recoil loads. These are desirable from the standpoint of shooter safety since the targets are steel and the ranges short. The low recoil reduces shooter fatigue and allows a quicker recovery time between shots during competition. These low velocity loads are quite sufficient to the task of knocking over target plates.

The following loads are tailored to meet the needs of the modern "Cowboy Action Shooter." They should be used exactly as shown with no reductions in charge weight. Bullet weight and type should be as closely matched as is feasible, as should the overall length of the loaded round. Care must be exercised to match the bullet diameter to the inside diameter of the cylinder throat. Undersize bullets will NOT perform well. They allow the already low gas pressure to flow past the base of the bullet and along the sides. This gas flow vaporizes lead from the bullet surface and deposits it in the cylinder and barrel making the gun harder to clean and usually deteriorating accuracy. The gas loss also reduces the pressure reached and results in poor ignition, lower velocity and more residue from the propellant combustion. It is also very important to have a high bullet pull. A tight fit between the case mouth and the bullet greatly aids ignition. Low bullet pull can and usually does ruin an otherwise excellent load.

Cowboy Action loads operate at pressures that are not compatible with many modern propellants. The propellants from the Accurate and Scot product line used in developing this data have proven suitable for the loads listed, but your favorite propellant may not necessarily work in every cartridge you might wish. Because of the low charge weight most of these cartridges could hold a double charge of propellant, perhaps more. It behooves the loader, therefore, to exercise caution and rigorously inspect his ammunition throughout the loading process to ensure that this doesn't happen. DO NOT ASSUME IT CAN'T HAPPEN TO YOU—IT CAN! We here in the customer service department at Accurate Arms Company hope that you, the shooter, will find this data of value in pursuing your favorite pastime. If you have any questions or comments please don't hesitate to call us at 931-729-4207, Monday through Friday, 8:00 am – 4:30 pm, central time.

O W B

COWBOY ACTION DATA

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COWBOY ACTION DATA

HANDGUN LOADS

32/20 WINCHESTER

Gun RUGER Barrel length 6½" Primer CCI 400 Case REM

Maximum Loads

Bullet	Powder	Grains	Vel.
(L) 100 SWC	No. 5	4.8	865
ÒÁL = 1.585"	No. 7	6.1	924
	No. 9	7.0	924

38 SPECIAL

 $\begin{array}{lll} \text{Gun} & \text{H.S. Precision/} \\ \text{S\&W Model 14} \\ \text{Barrel length} & 8^{3}/8^{"} \\ \text{Primer} & \text{CCI 500} \\ \text{Case} & \text{HDY} \end{array}$

Maximum Loads

Bullet	Powder	Grains	Vel.		
(L) 130 SWC	N100	3.3	949		
OAL = 1.420"	S1000	3.4	913		
	No. 2 IMP	N/R			
	No. 5	N/R			
(L) 158 SWC	N100	3.3	898		
ÒÁL = 1.481"	S1000	3.4	857		
	No. 2 IMP	4.0	868		
	No. 5	5.9	940		

357 MAGNUM

Gun S&W Barrel length 6" Primer CCI 500 Case HDY

1	Maximum Loads						
Bullet	Powder	Grains	Vel.				
(L) 148 DEWC	No. 2 IMP	3.0	746				
OAL = 1.370"		4.0	919				
(L) 148 HBWC	No. 2 IMP	2.5	645				
OAL = 1.320"		4.0	913				
(L) 158 SWC*	No. 2 IMP	4.0	864				
OAL = 1.510"		5.0	1008				

38/40 WINCHESTER

Gun RUGER Barrel length 6½" Primer WLP Case WIN

	Maximum Loads				
Bullet	Powder	Grains	Vel.		
(L) 145 FP OAL = 1.580"	N100	5.8	1027		
	No. 2 IMP	5.8	1016		
(L) 165 FP OAL = 1.580"	N100	5.2	959		
	No. 2 IMP	5.4	946		
(L) 185 FP OAL = 1.580"	N100	5.0	885		
	No. 2 IMP	5.0	871		
(L) 200 FP OAL = 1.580"	N100	4.8	836		
	No. 2 IMP	4.8	815		

44/40 WINCHESTER

 $\begin{array}{lll} \text{Gun} & \text{TEST BBL} \\ \text{Barrel length} & 7^1\!/2^* \\ \text{Primer} & \text{REM } 2^1\!/2^* \\ \text{Case} & \text{REM} \end{array}$

I	Maximum Loads					
Bullet	Powder	Grains	Vel.			
(L) 190 WC	N100	4.6	861			
OAL = 1.390"	S1000	4.9	860			
	No. 2 IMP	5.2	891			
	No. 5	8.5	950			
(L) 200 SWC	N100	5.3	954			
ÒÁL = 1.575"	S1000	5.7	929			
	No. 2 IMP	6.3	961			
	No. 5	9.2	983			

.44 RUSSIAN

Bullet

Gun TEST BBL
Barrel length 7½"
CCI 300
Case STARLINE
Maximum Loads

	Powder	Grains	Vel.
	N100	4.0	873
40 "	\$1000	4.6	923

(L) 200 FN	N100	4.0	873
OAL = 1.240"	S1000	4.6	923
	No. 2	4.8	939
	No. 5	7.5	917
	5744	13.0	919
(L) 240 SWC	N100	3.3	769
OAL = 1.280"	S1000	3.7	781
	No. 2	4.2	824
	No. 5	6.6	814
	5744	11.5	824

^{*}Note: SWC seated with front driving band flush with case mouth (357 Magnum and 44 Magnum).

COWBOY A	CTION DAT	ГА	2	24	COM	BOY ACTI	ON DA	ATA
44 S&W SPEC	IAL			_	I5 S&W-SCH	OFIELD		
Barrel length Primer	TEST BBL 7½" CCI 300 MIDWAY				Gun Barrel length Primer Case	TEST BBL 7½" CCI 300 STARLINE		
	Maximum Loa	ads				Maximum Lo	ads	
Bullet	Powder	<u>Grains</u>	Vel.		Bullet	Powder	Grains	Vel.
(L) 190 WC OAL = 1.265"	N100 S1000 No. 2 IMP No. 5	3.7 4.4 4.0 6.7	823 842 836 871		(L) 200 SWC OAL = 1.450"	N100 S1000 No. 2 IMP	5.6 6.3 5.6	959 952 863
(L) 200 SWC OAL = 1.465"	N100 S1000 No. 2 IMP	4.1 4.3 5.2	867 813 905		(L) 230 RN OAL = 1.450"	N100 S1000 No. 2 IMP	5.0 5.8 5.3	867 852 870
(L) 245 RN	No. 5 N100	7.4 3.8	959 752		(L) 255 SWC OAL = 1.450"	N100 S1000 No. 2 IMP	4.6 5.5 5.1	775 801 783
OAL = 1.600"	S1000 No. 2 IMP	4.5 4.7	791 819	4	5 COLT		0.1	700
(L) 250 SWC OAL = 1.575"	No. 5 N100 S1000 No. 2 IMP	6.8 4.2 4.3 5.0	860 772 751 808		Gun Barrel length Primer Case	TEST BBL 7½" CCI 300 WIN		
	No. 5	7.0	864			oad as Is; Do	Not Redu	ice
	110.0		00.		Bullet	Powder		
44 REMINGTO	N MAGNUM Test bbl				(L) 200 WC OAL = 1.560"	N100 S1000 No. 2 IMP	6.1 6.7 6.4	976 940 952
Barrel length Primer	7½" CCI 300 WIN				(L) 225 FN OAL = 1.595"	N100 S1000 No. 2 IMP	5.9 6.5 6.1	897 909 873
	Maximum Lo	ads			(L) 240 SWC	N100	5.7	898
Bullet	Powder	<u>Grains</u>	Vel.		OAL = 1.660"	S1000	6.3	851
(L) 190 WC OAL = 1.390"	N100 S1000 No. 2 IMP No. 5	5.0 5.5 5.5 8.0	964 946 955 951		(L) 250/255 FN OAL = 1.600"	No. 2 IMP N100 S1000 No. 2 IMP	6.0 5.5 5.8 5.9	845 868 807 813
(L) 200 SWC* OAL = 1.575"	N100 S1000 No. 2 IMP No. 5	4.7 5.0 5.0 7.6	911 928 885 880					
(L) 250 SWC* OAL = 1.620"	N100 S1000 No. 2 IMP No. 5	4.5 5.0 5.0 7.0	826 809 838 812					

^{*}Note: SWC seated with front driving band flush with case mouth (357 Magnum and 44 Magnum).

COWBOY ACTION DATA

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COWBOY ACTION DATA

LONG RANGE RIFLE LOADS

.30-30 WINCHESTER

Gun TEST BARREL
Barrel length
Primer CCI 200
Case REM

Maximum Loads

Bullet	Powder	Grains	Vel.
(L) LY 160 PBFN OAL = 2.550"	5744	12.6	1297
OAL = 2.550			

.32-40 WINCHESTER

Gun TEST BARREL
Barrel length
Primer CCI 200
Case REM

Maximum Loads

Bullet	_Powder_	<u>Grains</u>	Vel.
(L) LY 165 PBFN OAL = 2.500"	5744	16.0	1436

.38-55 WINCHESTER

Gun TEST BARREL
Barrel length
Primer CCI 200
Case WIN

Maximum Loads

Bullet	Powder	Grains	Vel.
(L) LY 240 PBFN	5744	16.0	1241
OAL = 2.510"			

.45-70 GOVERNMENT

Gun TEST BARREL
Barrel length
Primer CCI 200
Case REM NICKEL

Maximum Loads

Bullet	_Powder_	Grains	Vel.
(L) CLE 300 PB OAL = 2.550"	5744	31.0	1597
(L) CLE 405 PB OAL = 2.560"	5744	27.5	1355
(L) LY 500 PBRN OAL = 2.850"	5744	25.0	1209

NOTE: Crimp bullets firmly.

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SHOTSHELL LOADS

(See Shotshell Section)

RIFLE DATA

FOR MORE COMPLETE LOADING INFORMATION, BUY ACCURATE'S RELOADING MANUAL, BOOK TWO. SEE INSIDE BACK COVER FOR DETAILS.

	Gun Primer <u>Powder</u>	MINGTON DOUGLAS REM 7 ¹ / ₂ Start Chg.	Ca <u>Velocity</u>	arrel length ase <u>Max. Chg.</u>	24" REM <u>Velocity</u>	Powder HDY 50 9 1680	16.7	<u>Velocity</u> = 2.150" 2768	18.5	3009
3	HDY 25 2230 2460 2520 4064 2700	HP OAL 19.4 19.8 20.4 21.6 24.3	= 2.170" 3567 3648 3655 3721 3756	21.5 22.0 22.7 24.0 27.0	3877 3965 3973 4045 4083	2015 2230 2460 2520 NOS 55 1680	17.1	2951 2969 2948 2835 = 2.155" 2664	23.5 24.5 24.5 25.0	3208 3227 3204 3081 2896
	22 HO Gun Primer	RNET DOUGLAS CCI 500 Start Chg.	Ca	arrel length ase	24" WIN Velocity	2015 2230 2460 2520	20.3 22.1 22.1 22.1	2803 2858 2844 2725	22.5 24.5 24.5 24.5	3047 3106 3091 2962
	(L) 44 RI 5744	NGC OAL 8.1	= 1.665" 1879	9.0	2042	223 RE Gun Primer	EMINGTON WILSON REM 71/2	Ва	arrel length	24" REM
	HDY 35 1680	VMAX OAL 12.2	= 1.775" 2631	13.5	2860	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
	SRA 40 5744 1680 2015	HOR OAL 8.7 12.6 11.3 HOR OAL	= 1.715" 2031 2562 1842	9.7 14.0 12.5	2208 2785 2002	HDY 35 1 1680 5744 2015 2230	VMAX OAL 18.4 18.8 22.2 25.2	= 2.130" 3383 3381 3509 3629	20.4 20.9 24.7 28.0	3677 3675 3814 3945
	1680 2015 HDY 50 9 5744	11.1 11.3	= 1.720 2294 1912 = 1.780" 1795	12.3 12.5 9.0	2493 2078 1951	NOS 45 1680 2015 2230 2460 2495 2520	SP OAL 17.5 22.2 23.1 23.5 22.7 24.4	= 2.115" 3038 3262 3180 3198 3160 3150	19.5 24.7 25.7 26.1 25.2 27.1	3302 3546 3456 3476 3435 3424
	Gun Primer	EMINGTOI DOUGLAS REM 7½ Start Chg. SB OAL 18.9 22.1 24.3 24.3 22.5	Barrel Case	R	4" EM/WIN Velocity 3297 3384 3447 3405 3156	SPR 50 1 1680 2015 2230 2460 2495 2520 HDY 53 1 1680 2015 2230 2460 2495 2520	TNT OAL 17.5 21.8 22.2 22.2 22.7 24.4 HPBT OAL 17.1 20.9 22.2 21.8 22.2 23.5	= 2.235" 2894 3116 3075 3063 3019 3078 = 2.225" 2803 3007 2992 2975 3005 2976	19.5 24.2 24.7 24.7 25.2 27.1 19.0 23.3 24.7 24.2 24.7 26.1	3146 3387 3342 3329 3282 3346 3047 3268 3252 3234 3266 3235

RIE	LE DATA			2	7			RIFLE D	АТА
	MINGTON (C	יחידות)				REMINGTON	(CONT'D		AllA
	Start Chg.	-	Max. Chg.	Velocity		Start Chg.	•	•	Velocity
NOS 55	_	= 2.230"	<u></u>	10.00.1.7	NOS 55	_	= 1.970"	a 0.1.g.	10.00.1.7
1680 2015 2230 2460 2495 2520	17.5 21.4 22.2 22.7 22.4 23.5	2813 3019 2959 2973 3009 2966	19.5 23.8 24.7 25.2 24.9 26.1	3058 3281 3216 3231 3271 3224	5744 2015 2230 2460 2495 2520	22.1 26.1 28.8 29.3 27.9 29.4	3068 3211 3281 3317 3171 3303	24.5 29.0 32.0 32.5 31.0 32.7	3335 3490 3566 3605 3447 3590
	HPBT OAL		24.0	0047	4064 2700	29.3 30.6	3232 3088	32.5 34.0	3513 3357
2015 2230 2460 2495	19.7 20.9 21.1 21.4	2684 2695 2752 2727	21.9 23.3 23.5 23.8	2917 2929 2991 2964		REMING		34.0	3337
2520	23.1	2800	25.7	3044	Gun	APEX		rrel length	24"
NOTE: S	ome military ca	ases have l	ower case cap	acity than	Primer	CCI 200		ise	REM
	ommercial bras					Start Chg.		Max. Chg.	<u>Velocity</u>
	f charge weight pading with mil		. Ose extra cat	ution when	NOS 50 2015 2230 2460 2520	SP OAL 30.6 32.4 32.9 33.3	= 2.350" 3487 3496 3525 3513	34.0 36.0 36.5 37.0	3790 3800 3831 3819
Gun	DOUGLAS	Ва	rrel length	24"	4064	34.2	3492	38.0	3796
Primer	REM 7 ¹ / ₂		ise	SAKO	4350	36.0	3249	40.0	3531
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	NOS 55		= 2.370"	00.0	0500
SPR 50 2015 2230 2460 2495 2520	HP OAL 23.4 26.1 26.1 25.2 26.1	= 2.000" 3185 3328 3291 3223 3189	26.0 29.0 29.0 28.0 29.0	3462 3617 3577 3503 3466	2015 2230 2460 2520 4064 2700 4350	29.7 31.5 32.4 32.4 33.3 36.0 36.0	3310 3320 3376 3317 3341 3363 3189	33.0 35.0 36.0 36.0 37.0 40.0	3598 3609 3670 3605 3632 3655 3466
NOS 55		= 1.960"	05.0	0070	HDY 60		= 2.400"		
2015 2230 2460 2495 2520	22.5 25.2 25.2 24.8 26.1	3016 3132 3095 3147 3097	25.0 28.0 28.0 27.6 29.0	3278 3404 3364 3421 3366	2015 2230 2460 2520 4064 2700 4350	29.7 30.6 31.5 32.4 32.4 34.2 36.0	3217 3151 3219 3231 3226 3200 3123	33.0 34.0 35.0 36.0 36.0 38.0 40.0	3497 3425 3499 3512 3507 3478 3395
Gun	DOUGLAS		rrel length	24"	SPR 70		= 2.325"		
Primer	REM 7 ¹ / ₂	_	ise	REM	2015 2230	27.0 27.9	2876 2844	30.0 31.0	3126 3091
Powder	Start Chg.	Velocity	Max. Chg.	<u>Velocity</u>	2460	27.9	2831	31.0	3077
NOS 40 5744	23.9	= 2.055" 3536	26.5	3843	2520 4064 2700	29.3 29.0 31.1	2892 2962 2871	32.5 32.2 34.5	3144 3220 3121
SPR 50 5744 2015 2230 2460 2495 2520 2700	23.4 27.5 30.0 30.2 28.8 30.3 31.5	= 2.000" 3278 3431 3464 3461 3274 3451 3198	26.0 30.5 33.3 33.5 32.0 33.7 35.0	3563 3729 3765 3762 3559 3751 3476	4350	34.2	2984	38.0	3244

RIF	LE DATA			2	8			RIFLE D	ATA
220 S\	WIFT				6mm BF	REMINGTO	ON (CON	Γ'D)	
Gun	RUGER 77\	/ Ba	arrel length	26"			•	Max. Chg.	<u>Velocity</u>
Primer	FED 210		ase	WIN	SPR 80 9	SP (OAL = 2.1	20"	
Powder	Start Chg.		Max. Chg.	<u>Velocity</u>	2015	26.1	2800	29.0	3044
SPR 50		= 2.700"			2230 2460	27.9 28.8	2794 2874	31.0 32.0	3037 3124
4064	35.1 40.5	3536 3712	39.0 45.0	3843 4035	2495	27.0	2829	30.0	3075
2700 4350	40.5 39.6	3625	45.0 44.0	3940	2520	29.7	2871	33.0	3121
3100	39.6	3302	44.0	3589	2700	31.5	2698	35.0	2933
NOS 55	SBT OAL	= 2.680"			243 W	INCHEST	ER		
4064	33.3	3281	37.0	3566	Gun	HS PRECIS		arrel length	24"
2700	39.2	3525	43.5	3832	Primer	CCI 200		ase	WIN
4350 3100	39.6 39.6	3584 3301	44.0 44.0	3896 3588	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
HDY 60		= 2.700"	44.0	3300	NOS 55	_	OAL = 2.6	_	
2700	37.8	3318	42.0	3607	2015	35.1	3433	39.0	3731
4350	39.6	3514	44.0	3820	2230	37.4	3502	41.5	3807
3100	39.6	3246	44.0	3528	2460 2520	38.7 39.2	3561 3574	43.0 43.5	3871 3885
SPR 70		= 2.660"			2700	43.7	3517	48.5	3823
2700	35.1	3160	39.0	3435	4350 (C)	42.8	3235	47.5	3516
4350 3100	37.4 39.6	3207 3139	41.5 44.0	3486 3412	3100 (C)	42.8	2919	47.5	3173
0100	03.0	0100	44.0	0412	HDY 70 9		OAL = 2.6		
					2015 2495	32.9 35.1	3123 3210	36.5 39.0	3395 3489
6mm F	PPC				2520	35.1	3096	39.0	3365
Gun	DOUGLAS	Barrel le			4064	37.8	3201	42.0	3479
Primer	REM 7 ¹ / ₂	Case	SAF	Ю	2700	40.5	3218	45.0	3498
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	4350 3100	43.2 43.2	3249 2959	48.0 48.0	3531 3216
SRA 60		= 2.050"			SRA 80/8		DAL = 2.6		3210
2015	24.5	2910	27.2	3163	2495	31.5	2826	35.0	3072
2230 2460	26.6 27.0	2921 2944	29.5 30.0	3175 3200	4064	34.2	2889	38.0	3140
2495	25.7	2921	28.5	3175	2700	36.9	2889	41.0	3140
HDY 70		= 2.080"			4350 3100	39.6 41.4	3030 2881	44.0 46.0	3294 3132
2015	24.3	2720	27.0	2957	MAGPRO		3168	53.7	3510
2230	25.7	2690	28.5	2924	SPR 100		OAL = 2.70		00.0
2460 2495	26.6 25.7	2743 2779	29.5 28.5	2981 3021	2495	27.0	2441	30.0	2653
2493	23.7	2119	20.5	3021	4064	27.9	2432	31.0	2644
					2700 4350	32.4 35.1	2533 2743	36.0	2753
6mm E	BR REMIN	GTON			3100	38.7	2743 2729	39.0 43.0	2981 2966
Gun	DOUGLAS	Ва	arrel length	24"	MAGPRO		2838	47.5	3107
Primer	REM 7 ¹ / ₂	Ca	ise	REM	6mm E	REMINGTO)N		
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Gun	DOUGLAS		arrel length	24"
SRA 70		= 2.170"			Primer	CCI 200		ase	FED
2015	27.5	3019	30.5	3281				Max. Chg.	
2230 2460	29.3 29.7	2996 3013	32.5 33.0	3256 3275	NOS 55	_	DAL = 2.7	_	
2495	28.4	3001	31.5	3262	2015	36.9	3583	41.0	3895
2520	30.6	3020	34.0	3283	2495	40.1	3606	44.5	3920
2700	31.5	2713	35.0	2949	4064 2700	40.5 45.5	3709 3602	45.0 50.5	4031 3915
					4350 (C)	45.9	3456	51.0	3756
					3100 (C)	45.9	3111	51.0	3381

 $\begin{tabular}{lll} \textbf{WARNING:} & \textbf{Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.} \\ \textbf{(C) Denotes a compressed load for maximum charge.} \\ \end{tabular}$

RIF	LE DATA			2	9			RIFLE D	ATA
	MINGTON (CONT'D)			257 RO	DBERTS			
	Start Chg.			<u>Velocity</u>	Gun	DOUGLAS		arrel length	24"
HDY 70		= 2.775"	40.0	0504	Primer	CCI 200		New Cha	REM
2015 2495	36.7 37.8	3221 3283	40.8 42.0	3501 3568	Powder SRA 75		= 2.745"	Max. Chg.	velocity
4064	40.1	3383	44.5	3677	2520	35.6	2915	39.5	3169
4350 3100	45.0 45.9	3154 2932	50.0 51.0	3428 3187	4064	38.1	3036	42.3	3300
SPR 80		= 2.825"	31.0	3107	2700 4350	41.4 42.3	2984 2996	46.0 47.0	3243 3257
2015	34.9	3014	38.8	3276	3100	45.9	2910	51.0	3163
2495	36.0	3018	40.0	3280	SRA 90	HPBT OAL	= 2.735"		
4064 2700	39.2 43.2	3206 3143	43.5 48.0	3485 3416	2520	33.3	2711	37.0	2947
4350	44.6	3134	49.5	3406	4064 2700	36.5 37.8	2817 2750	40.5 42.0	3062 2989
3100	45.9	2931	51.0	3186	4350	40.5	2761	45.0	3001
NOS 100		= 2.825"	00.5	0000	3100	45.0	2812	50.0	3056
2015 4064	32.9 36.0	2664 2824	36.5 40.0	2896 3070	NOS 100 2520	31.5	= 2.785" 2525	35.0	0745
2700	41.0	2814	45.5	3059	4064	31.5 34.2	2525 2572	38.0	2745 2796
4350	41.0	2798	45.6	3041	2700	36.9	2626	41.0	2854
3100	43.2	2743	48.0	2981	4350 3100	40.1	2666 2635	44.5	2898
						44.1 SBT OAL		49.0	2864
250/30	000 SAVAC				2520	30.6	2351	34.0	2555
Gun	DOUGLAS		rrel length	24"	2700	35.1	2409	39.0	2619
Primer	REM 9 ¹ / ₂		ise	REM	4350 3100	38.7 43.2	2484 2517	43.0 48.0	2700 2736
SRA 75	Start Chg.	<u>velocity</u> = 2.465"	wax. Cng.	velocity	0100	40.2	2017	40.0	2700
2015	28.4	2866	31.5	3115	25/06	REMINGT	ON		
2230	30.2	2865	33.5	3114	Gun	WISEMAN		rrel length	24"
2460 2520	30.6 30.6	2925 2871	34.0 34.0	3179 3121	Primer	CCI 250		ise	REM
4064	32.4	2916	36.0	3170		Start Chg.		Max. Chg.	<u>Velocity</u>
4350	36.9	2791 2516	41.0	3034 2735	(L) 100 F		= 2.950"	00.0	0070
3100 SBA 90	36.9 HPBT OAL		41.0	2/33	5744 SRA 75	19.8	1906 = 3.065"	22.0	2072
2015	27.5	2695	30.5	2929	2700	47.7	3453	53.0	3753
2230	28.8	2673	32.0	2905	4350 (C)	53.1	3478	59.0	3780
2460 2520	28.8 29.3	2665 2670	32.0 32.5	2897 2902	3100 (C)	54.0	3298	60.0	3585
4064	31.5	2757	35.0	2997	2700	90 HP OAL 45.0	= 3.0/5"	50.0	3416
4350	36.0	2697	40.0	2931	4350	48.6	3194	54.0	3472
3100	36.9	2513 = 2.500"	41.0	2731	3100 (C)	50.9	3100	56.5	3370
HDY 100 2015	27.0	2569	30.0	2792	MAGPRO NOS 100		3261 = 3.250"	62.5	3573
2230	27.0	2449	30.0	2662	2700	43.2	2956	48.0	3213
2460 2520	27.9 28.8	2472 2539	31.0 32.0	2687 2760	4350	46.8	3011	52.0	3273
4064	31.5	2635	35.0	2864	3100 (C)	49.5	3020	55.0	3283
4350	35.1	2559	39.0	2781	8700 (C)	58.5 PART OAL	2616 - 3 105"	65.0	2843
3100	36.9	2454	41.0	2667	2700	41.1	2713	45.7	2949
					4350	44.6	2809	49.5	3053
					3100 8700 (C)	47.5 57.6	2814 2579	52.8 64.0	3059 2803
					1 0,00 (0)	57.0	2013	U-1.U	2000

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. (C) Denotes a compressed load for maximum charge.

RIFL	E DATA			3	0			RIFLE D	ATA
25/06 RE	MINGTON	(CONT'D)		260 REN	IINGTON (C	ONT'D)		
		•	Max. Chg.	<u>Velocity</u>		Start Chg.	•	Max. Chg.	<u>Velocity</u>
	SPBT OAL		45.0	2222	SRA 140		L = 2.77		0500
2700 4350	40.5 44.1	2662 2707	45.0 49.0	2893 2942	4064 2700	32.9 36.0	2363 2408	36.5 40.0	2569 2617
3100	46.8	2740	52.0	2978	4350	38.7	2546	43.0	2767
MAGPRO		2777	54.0	3039	3100 (C)	41.4	2516	46.0	2735
8700 (C)	57.6	2505	64.0	2723					
25/20 W	/INCHES	TED				5mm SW			
	VINCHES Douglas		rrel length	24"	Gun Primer	DOUGLAS CCI 200		irrel length ise	24" PMC
	CCI 400		se	REM		Start Chg.			
<u>Powder</u>	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	(L) 140 S	-	L = 3.020	_	volocity
(L) 65 FN		= 1.592"			5744	26.1	2181	29.0	2371
5744	9.9	1724	11.0	1874	2495	29.7	2178	33.0	2367
(L) 90 FN		= 1.615"	40.0	4075	2520 4064	30.6 34.2	2173 2293	34.0 38.0	2362 2492
5744	9.0	1541	10.0	1675	2700	36.9	2308	41.0	2509
HDY 60 F		= 1.592"	44 /	1050	4350	39.6	2319	44.0	2521
5744	10.3	1797	11.4	1953	3100 (C)	42.3	2278	47.0	2476
SPR 75 F I 5744	N OAL 10.1	= 1.585" 1702	11.2	1850	8700 (C)	47.7	2020	53.0	2196
3/44	10.1	1702	11.2	1030	HDY 100 2520		L = 2.975 2728	5" 41.0	2965
aca DE					4064	36.9 39.6	2815	44.0	3060
	MINGTON			0.411	2700	43.2	2846	48.0	3093
	H. S. PREC REM 9½	ISION Ba Ca		24" REM	4350	43.2	2695	48.0	2929
					3100	44.1	2506	49.0	2724
	_	-	Max. Chg.	velocity	HDY 129		L = 3.025		0550
SRA 85 H 5744	20.0	= 2.670" 2160	33.0	3214	2520 4064	33.8 37.4	2353 2519	37.5 41.5	2558 2738
4064	39.6	3081	44.0	3349	2700	38.7	2443	43.0	2655
2700	43.2	3073	48.0	3340	4350	41.4	2533	46.0	2753
4350 (C)	43.2	2966	48.0	3224	3100	44.1	2503	49.0	2721
3100 (C)	43.2	2688	48.0	2922	SPR 140		L = 3.000		
HDY 100 9		L = 2.750		0100	2520	33.3	2302	37.0	2502
4064 2700	38.7 42.3	2915 2922	43.0 47.0	3168 3176	4064 2700	36.0 37.8	2363 2364	40.0 42.0	2569 2570
4350 (C)	44.1	3005	49.0	3266	4350	40.5	2419	45.0	2629
3100 (C)	45.0	2799	50.0	3042	3100	42.3	2322	47.0	2524
SWF 120	SP OAL	= 2.710"			8700 (C)	47.7	2018	53.0	2193
4064	35.1	2592	39.0	2817	SRA 155		L = 3.090		
2700	38.7	2601	43.0	2827	4064	33.8	2197	37.5	2388
4350 3100 (C)	41.0 42.8	2719 2621	45.5 47.5	2955 2849	2700 4350	34.2 38.3	2185 2337	38.0 42.5	2375 2540
HDY 129		= 2.780"	47.5	2043	3100	41.4	2336	46.0	2539
4064	34.2	2470	38.0	2685	8700 (C)	47.7	2220	53.0	2413
2700	36.9	2474	41.0	2689					
4350	39.6	2606	44.0	2833	.264 W	INCHEST	FR MA	GNUM	
3100 (C)	42.3	2663	47.0	2895	Gun	H&S PRECI			24"
SWF 140		= 2.740"	05.0	0404	Primer	CCI 250		ise	WIN
4064 2700	31.5 35.1	2294 2331	35.0 39.0	2494 2534	Powder	Start Chg.	Velocity	Max. Chq.	Velocity
4350	37.4	2458	41.5	2672		AMAX OA	-	_	
3100 (C)	40.5	2429	45.0	2640	MAGPRO		2821	65.2	3079

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RIF	LE DATA			3	31			RIFLE D	ATA
270 W	INCHESTI	ER			.270 WIN	NCHESTER	SHORT N	AGNUM (C	ONT'D)
Gun	HS PRECIS		arrel length	24"	Powder	_	-	Max. Chg.	<u>Velocity</u>
Primer Powder	REM 9½ Start Chg.		ase May Cho	REM Velocity	BAR 130 3100 (C)	X OAL 57.1	= 2.800" 2772	63.5	3093
(L) 150 F		= 3.250"	max. Ong.	volocity	MAGPRO		2958	74.0	3287
8700	54.0	2184	60.0	2374		BTSP OAL			
SRA 90		= 3.090"	40.0	2072	4350 3100 (C)	52.9 58.0	2865 2811	58.9 64.5	3137 3135
5744 4064	24.0 47.7	2174 3179	40.0 53.0	3270 3455	MAGPRO		2985	74.2	3275
2700	51.3	3176	57.0	3452		SPBT OAL			
4350	54.9	3205	61.0	3484	4350	44.6	2550	49.7	2866
3100	54.9	2877	61.0	3127	3100 (C)	55.7	2758	62.0	3036
HDY 100		= 3.175"	00.5	0400	MAGPRO	(C) 63.0	2864	70.0	3136
5744 4064	24.0 46.8	2135 3072	38.5 52.0	3100 3339					
2700	50.4	3073	56.0	3340	7-30 W	ATERS (F	LAT POIN	IT BULLETS	ONLY)
4350	54.0	3088	60.0	3356	Gun	DOUGLAS		rrel length	24" ´
3100	54.9	2852	61.0	3100	Primer	REM 9 ¹ / ₂		ise	REM
NOS 130		= 3.330"		07.40	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
5744 4064	24.5 43.2	1950 2686	36.5 48.0	2748 2920	NOS 120		= 2.530"		
2700	46.8	2718	52.0	2954	2015	29.7	2472	33.0	2687
4350	49.5	2778	55.0	3020	2230 2460	30.6 30.6	2434 2405	34.0 34.0	2646 2614
3100	54.9	2820	61.0	3065	2520	33.3	2515	37.0	2734
MAGPRO		2919	65.0	3234	4064	34.2	2507	38.0	2725
HDY 140 5744	SBT OAL 25.0	= 3.330" 1962	36.0	2621	NOS 139		= 2.665"		
2700	25.0 46.8	2662	52.0	2893	2015	27.9	2211	31.0	2403
4350	50.4	2749	56.0	2988	2230 2460	30.6 31.1	2339 2344	34.0 34.5	2542 2548
3100	54.0	2725	60.0	2962	2520	31.1	2274	34.5	2472
8700	57.6	2257	64.0	2453	4064	32.0	2329	35.5	2532
SRA 150		= 3.300"	05.5	0500					
5744 2700	26.0 45.0	1998 2519	35.5 50.0	2536 2738	7x57m	m MAUSE	=R		
4350	47.7	2650	53.0	2880	Gun	DOUGLAS		rrel length	24"
3100	52.2	2662	58.0	2894	Primer	CCI 200		ise	WIN
MAGPRO 8700	55.4 56.7	2725 2329	61.5 63.0	3000 2532	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
6700	30.7	2329	03.0	2002		SBT OAL			
070 14					4064	37.8	2468	42.0	2683
	INCHEST				2700	42.8	2523	47.5	2742
Gun Primer	WISEMAN WIN WLR		arrel length ase	24" WIN	4350 3100	45.9 45.9	2609 2356	51.0 51.0	2836 2561
	Start Chg.				NOS 150		= 3.060"		
SPR 100		= 2.675"	max. Olig.	velocity	4064	36.0	2317	40.0	2519
4350 (C)	61.5	3394	68.5	3696	2700	41.4	2416	46.0	2626
3100 (C)	60.2	2984	67.0	3350	4350	44.1 45.9	2504	49.0 51.0	2722
MAGPRO		3200	78.0	3545	3100		2375 = 3.040"	51.0	2581
	SPBT OAL		00.0	0050	HDY 175 4064	35.1	2155	39.0	2342
4350	54.1 58.4	2950	60.0	3256	2700	38.7	2209	43.0	2401
3100 (C) MAGPRO		2870 3062	65.0 75.5	3212 3359	4350	42.3	2306	47.0	2507
	(3) 00.0	000L	. 5.0	5550	3100	45.0	2247	50.0	2442

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RIFL	E DATA			32				RIFLE DATA		
7mm08	REMING	TON			.280 R	EMINGTO	N			
	DOUGLAS CCI 200		rrel length se	24" REM	Gun Primer	DOUGLAS REM 9½		arrel length ase	24" REM	
<u>Powder</u>	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	
(L) 145 G(5744 (L) 168 G(24.3	= 2.670" 2110 = 2.735"	27.0	2294	SPR 120 2700 4350	47.3 51.3	= 3.200" 2761 2863	52.5 57.0	3001 3112	
5744	24.3	2000	27.0	2174	3100	54.0	2783	60.0	3025	
NOS 120		= 2.765"			BAR 140 2700	X OAL 43.7	= 3.310" 2493	48.5	2710	
2015	34.4	2656	38.2	2887	4350	45.7	2554	51.0	2776	
2230	36.3	2656	40.3	2887	3100	51.3	2612	57.0	2839	
2460	36.6	2688 2644	40.7 41.4	2922 2874	HDY 154		= 3.330"	07.0	2000	
2520 4064	37.3 38.7	2044 2721	43.0	2958	2700	44.1	2501	49.0	2718	
2700	41.9	2641	46.5	2871	4350	48.6	2599	54.0	2825	
4350	42.8	2570	47.5	2794	3100	52.2	2569	58.0	2792	
3100	42.8	2298	47.5	2498				50.0	LIJL	
				_ 100	NOS 160		= 3.300"	40 F	0000	
	SBT OAL		07.0	0000	2700	43.7	2450	48.5	2663	
2015	33.3	2483	37.0	2699 2711	4350	46.8	2523	52.0	2742	
2230 2460	35.1 36.0	2494 2547	39.0 40.0	2711	3100	51.8	2553	57.5	2775	
2520	35.6	234 <i>1</i> 2484	39.5	2700	HDY 175		= 3.300"			
4064	37.8	2553	42.0	2775	2700	41.4	2234	46.0	2428	
2700	40.1	2484	44.5	2700	4350	46.4	2376	51.5	2583	
4350	42.8	2579	47.5	2803	3100	51.3	2467	57.0	2681	
3100	42.8	2332	47.5	2535						
	SBT OAL		47.0	2000	7mm R	REMINGTO)n mag	NUM		
2015	32.4	2372	36.0	2578	Gun	OBERMEYE	ER Ba	rrel length	24"	
2230	34.2	2410	38.0	2620	Primer	CCI 250	Ca	ise	REM	
2460	34.5	2415	38.3	2625	Powder	Start Chg.	Velocity	Max. Chg.	Velocity	
2520	35.1	2403	39.0	2612		SP OAL				
4064	36.9	2454	41.0	2667	5744	24.5	2041	47.0	3127	
2700	39.2	2424	43.5	2635	4064	48.6	2906	54.0	3159	
4350	41.9	2513	46.5	2731	2700	55.4	2920	61.5	3174	
3100	42.3	2294	47.0	2494	4350	56.7	2958	63.0	3215	
NOS 160	SP OAL	= 2 800"			3100	64.2	3059	71.3	3325	
2015	31.5	2245	35.0	2440	8700	71.1	2743	79.0	2982	
2230	32.9	2240	36.5	2435		SBT OAL				
2460	33.3	2256	37.0	2452	5744	27.5	2050	45.5	2948	
2520	34.2	2259	38.0	2455	4064	47.7	2702	53.0	2937	
4064	36.0	2349	40.0	2553	2700	53.6	2755	59.5	2995	
4350	41.4	2420	46.0	2630	4350				3028	
0400		2-120				54.9	2/86	hi ()		
3100	42.3	2256	47.0	2452		54.9 61.2	2786 2845	61.0 68.0		
	42.3	2256			3100	61.2	2845	68.0	3092	
REM 175	42.3 SP OAL	2256 = 2.795"	47.0	2452	3100 MAGPRO	61.2 66.3	2845 2952	68.0 73.7	3092 3220	
REM 175 2015	42.3 SP OAL 31.5	2256 = 2.795" 2131	47.0 35.0	2452 2316	3100 MAGPRO 8700	61.2 0 66.3 72.0	2845 2952 2555	68.0	3092	
REM 175	42.3 SP OAL	2256 = 2.795"	47.0	2452	3100 MAGPRO 8700 SRA 150	61.2 66.3 72.0 SBT OAL	2845 2952 2555 = 3.280"	68.0 73.7 80.0	3092 3220 2777	
REM 175 2015 2230	42.3 SP OAL 31.5 33.3	2256 = 2.795" 2131 2183	47.0 35.0 37.0	2452 2316 2373	3100 MAGPRO 8700 SRA 150 5744	61.2) 66.3 72.0 SBT OAL 29.5	2845 2952 2555 = 3.280" 2066	68.0 73.7 80.0	3092 3220 2777 2739	
REM 175 2015 2230 2460	42.3 SP OAL 31.5 33.3 33.3	2256 = 2.795" 2131 2183 2177	47.0 35.0 37.0 37.0	2452 2316 2373 2366	3100 MAGPRO 8700 SRA 150 5744 4064	61.2 66.3 72.0 SBT OAL 29.5 46.4	2845 2952 2555 = 3.280" 2066 2583	68.0 73.7 80.0 43.0 51.5	3092 3220 2777 2739 2808	
REM 175 2015 2230 2460 2520	42.3 SP OAL 31.5 33.3 33.3 34.2	2256 = 2.795" 2131 2183 2177 2175 2179 2196	47.0 35.0 37.0 37.0 38.0	2452 2316 2373 2366 2364	3100 MAGPRO 8700 SRA 150 5744 4064 2700	61.2 66.3 72.0 SBT OAL 29.5 46.4 51.8	2845 2952 2555 = 3.280" 2066 2583 2668	68.0 73.7 80.0 43.0 51.5 57.5	3092 3220 2777 2739 2808 2900	
REM 175 2015 2230 2460 2520 4064	42.3 SP OAL 31.5 33.3 33.3 34.2 35.6	2256 = 2.795" 2131 2183 2177 2175 2179	47.0 35.0 37.0 37.0 38.0 39.5	2452 2316 2373 2366 2364 2368	3100 MAGPRC 8700 SRA 150 5744 4064 2700 4350	61.2 66.3 72.0 SBT OAL 29.5 46.4 51.8 54.9	2845 2952 2555 = 3.280" 2066 2583 2668 2731	68.0 73.7 80.0 43.0 51.5 57.5 61.0	3092 3220 2777 2739 2808 2900 2968	
REM 175 2015 2230 2460 2520 4064 2700	42.3 SP OAL 31.5 33.3 33.3 34.2 35.6 37.8	2256 = 2.795" 2131 2183 2177 2175 2179 2196	47.0 35.0 37.0 37.0 38.0 39.5 42.0	2452 2316 2373 2366 2364 2368 2387	3100 MAGPRO 8700 SRA 150 5744 4064 2700 4350 3100	61.2 66.3 72.0 SBT OAL 29.5 46.4 51.8 54.9 59.4	2845 2952 2555 = 3.280" 2066 2583 2668 2731 2763	68.0 73.7 80.0 43.0 51.5 57.5 61.0 66.0	3092 3220 2777 2739 2808 2900 2968 3003	
REM 175 2015 2230 2460 2520 4064 2700 4350	42.3 SP OAL 31.5 33.3 34.2 35.6 37.8 41.0	2256 = 2.795" 2131 2183 2177 2175 2179 2196 2301	47.0 35.0 37.0 37.0 38.0 39.5 42.0 45.5	2452 2316 2373 2366 2364 2368 2387 2501	3100 MAGPRO 8700 SRA 150 5744 4064 2700 4350 3100 8700	61.2 66.3 72.0 SBT OAL 29.5 46.4 51.8 54.9 59.4 71.1	2845 2952 2555 = 3.280" 2066 2583 2668 2731 2763 2715	68.0 73.7 80.0 43.0 51.5 57.5 61.0	3092 3220 2777 2739 2808 2900 2968	
REM 175 2015 2230 2460 2520 4064 2700 4350	42.3 SP OAL 31.5 33.3 34.2 35.6 37.8 41.0	2256 = 2.795" 2131 2183 2177 2175 2179 2196 2301	47.0 35.0 37.0 37.0 38.0 39.5 42.0 45.5	2452 2316 2373 2366 2364 2368 2387 2501	3100 MAGPRO 8700 SRA 150 5744 4064 2700 4350 3100 8700	61.2 66.3 72.0 SBT OAL 29.5 46.4 51.8 54.9 59.4 71.1 HPBT OAL	2845 2952 2555 = 3.280" 2066 2583 2668 2731 2763 2715	68.0 73.7 80.0 43.0 51.5 57.5 61.0 66.0	3092 3220 2777 2739 2808 2900 2968 3003	

	DATA		3	3			RIFLE C	PATA
7mm REMING	TON MAGNU	M (CONT'D)		7mm REMINGTON ULTRA MAG (CONT'D)				
Powder Start	t Chg. Velocity	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
NOS 160 SP	OAL = 3.280	•		NOS 150	BT OAL	= 3.595"		
	0.0 2069	42.5	2679	5744	32.0	2026	43.0	2506
	4.6 2454 1.8 2559	49.5 57.5	2667 2781	5744 3100	50.4 74.2	2795 3064	56.0 82.4	3038 3330
	1.3 2547	57.5 57.0	2768	MAGPRO		3132	89.2	3324
	7.2 2627	63.5	2855	8700	93.6	3128	104.0	3400
8700 7 ⁻	1.1 2698	79.0	2933	SRA 160	SPBT OAL	= 3.595"		
NOS 175 SP	OAL = 3.275			5744	33.0	2052	45.0	2529
	1.5 2042	41.5	2513	5744	50.4	2729	56.0	2966
	3.2 2302	48.0	2502	3100	73.4	2968	81.5	3226
	7.7 2375 0.4 2441	53.0 56.0	2581 2653	MAGPRO 8700	91.8	3033 3055	87.0 102.0	3217 3321
	4.5 2484	60.5	2700	HDY 175		= 3.595"	102.0	0021
	9.4 2640	66.0	2854	5744	50.4	2626	56.0	2854
8700 6	7.5 2534	75.0	2754	3100	72.0	2823	80.0	3069
				MAGPRO		2909	85.5	3080
7mm WINC	HESTER SI	HORT MAG	MUM	8700	92.7	2975	103.0	3234
_	-	Barrel length	24"	SWF 175		= 3.595"		
		ase	WIN	3100	69.3	2800	77.0	3043
Powder Start	t Chg. Velocity	/ Max. Chg.	Velocity	8700	88.2	2881	98.0	3132
WIN 140 JSP	OAL = 2.780							
MAGPRO 68	8.0 2850	76.0	3190	7mm V	VEATHER	BY MAC	MUNG	
WIN 150 JSP	OAL = 2.780	"		Gun	DOUGLAS		rrel length	26"
	6.6 2800	74.0	3070	Primer	REM 9 ¹ / ₂ M	Ca	ise	REM
WIN 160 FS								
	OAL = 2.780		0075	<u>Powder</u>	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
	UAL = 2.780 4.8 2700	72.0	2975	BAR 120	X OAL	= 3.310"		
MAGPRO 64	4.8 2700	72.0	2975	BAR 120 4350	X OAL 63.9	= 3.310" 3205	71.0	3484
MAGPRO 64	4.8 2700 NGTON ULT	72.0 'RA MAG	2975	BAR 120 4350 3100	X OAL 63.9 68.4	= 3.310" 3205 3199	71.0 76.0	3484 3477
7mm REMI	4.8 2700 NGTON ULT PRECISION E	72.0 TRA MAG Barrel length	26"	BAR 120 4350 3100 8700	X OAL 63.9 68.4 77.4	= 3.310" 3205 3199 2827	71.0	3484
7mm REMI Gun HS P Primer REM	NGTON ULT PRECISION E 9½M C	72.0 TRA MAG Barrel length Case	26" REM	BAR 120 4350 3100 8700 HDY 139	X OAL 63.9 68.4 77.4 SBT OAL	= 3.310" 3205 3199 2827 = 3.340"	71.0 76.0 86.0	3484 3477 3073
7mm REMI Gun HS P Primer REM	NGTON ULT PRECISION E 9½M C t Chg. Velocity	72.0 TRA MAG Barrel length Case Max. Chg.	26" REM	BAR 120 4350 3100 8700 HDY 139 4350	X OAL 63.9 68.4 77.4 SBT OAL 62.1	= 3.310" 3205 3199 2827 = 3.340" 3030	71.0 76.0	3484 3477 3073
7mm REMI Gun HS P Primer REM Powder Start (L) 145	NGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500	72.0 TRA MAG Barrel length Case Max. Chg.	26" REM <u>Velocity</u>	BAR 120 4350 3100 8700 HDY 139	X OAL 63.9 68.4 77.4 SBT OAL	= 3.310" 3205 3199 2827 = 3.340"	71.0 76.0 86.0	3484 3477 3073
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 30	MGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971	72.0 TRA MAG Barrel length Case Max. Chg.	26" REM	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8	= 3.310" 3205 3199 2827 = 3.340" 3030 3048 2695	71.0 76.0 86.0 69.0 74.0	3484 3477 3073 3293 3313
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 30 (L) 168 FPGC	MGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260	72.0 FRA MAG Barrel length Case Max. Chg.	26" REM Velocity	BAR 120 4350 3100 8700 HDY 139 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8	= 3.310" 3205 3199 2827 = 3.340" 3030 3048	71.0 76.0 86.0 69.0 74.0	3484 3477 3073 3293 3313
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 30 (L) 168 FPGC 5744 3	MGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952	72.0 FRA MAG Barrel length Case Max. Chg. 36.0	26" REM <u>Velocity</u>	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8	= 3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0	3484 3477 3073 3293 3313 2929 3090 3199
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3 (L) 168 FPGC 5744 3 HDY 120 SPHF	MGTON ULT PRECISION E 91/2M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595	72.0 FRA MAG Barrel length Case Max. Chg. 36.0	26" REM Velocity 2228 2248	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670	71.0 76.0 86.0 69.0 74.0 82.0	3484 3477 3073 3293 3313 2929
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3 (L) 168 FPGC 5744 3 HDY 120 SPHF 3100 75	NGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323	72.0 FRA MAG Barrel length Case Max. Chg. 36.0 40.0	26" REM Velocity 2228 2248 3612	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355"	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0	3484 3477 3073 3293 3313 2929 3090 3199 2902
MAGPRO 6-6 7mm REMI Gun HS P Primer REM Powder Start (L) 145 30 5744 30 HDY 120 SPHF 3100 70 8700 90	A.8 2700 NGTON ULT RECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323 8.1 3360	72.0 FRA MAG Barrel length Case Max. Chg. 36.0 40.0 88.0 109.0	26" REM Velocity 2228 2248	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039
7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3((L) 168 FPGC 5744 3; HDY 120 SPHF 3100 75 8700 96 HDY 139 SP	A.8 2700 NGTON ULT PRECISION E 9½M OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595	72.0 FRA MAG Sarrel length case Max. Chg. 36.0 40.0 88.0 109.0	26" REM Velocity 2228 2248 3612 3652	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106
7mm REMII Gun HS P Primer REM Powder Start (L) 145 5744 3 (L) 168 FPGC 5744 3 HDY 120 SPHF 3100 7 8700 90 HDY 139 SP 5744 3 3100 7	MGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595 1.0 2046 7.4 3174	72.0 FRA MAG Barrel length Case Max. Chg. 40.0 88.0 109.0 42.0 86.0	26" REM Velocity 2228 2248 2612 3652 2562 3450	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039
MAGPRO 6-6 7mm REMII Gun HS P Gun HS P Primer REM Powder Start (L) 145 5744 30 5744 3 (L) 168 FPGC 5744 3 HDY 120 SPHF 3100 7 8700 98 HDY 139 SP 5744 3 3100 7 MAGPRO 86	A.8 2700 NGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595 1.0 2046 7.4 3174 6.9 3265	72.0 FRA MAG Barrel length Case Max. Chg. 36.0 40.0 88.0 109.0 42.0 86.0 91.5	26" REM Velocity 2228 2248 3612 3652 2562 3450 3462	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360"	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892
MAGPRO 6-6 7mm REMII Gun HS P Gun Primer REM Powder Start (L) 145 30 5744 3 HDY 120 SPHF 3100 75 8700 96 HDY 139 SP 5744 3 3100 7 MAGPRO 86 8700 96 MAGPRO 86 8700 98 99	MGTON ULT PRECISION E 9½M C t Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595 1.0 2046 7.4 3174 6.9 3265 5.4 3222	72.0 FRA MAG Barrel length Case Max. Chg. 40.0 88.0 109.0 42.0 86.0 91.5 106.0	26" REM Velocity 2228 2248 2612 3652 2562 3450	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106
MAGPRO 6- 7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3- (L) 168 FPGC 5744 3- HDY 120 SPHF 3100 7- 8700 9- HDY 139 SP 5744 3- 3100 7- MAGPRO 86 8700 9- BAR 140 X	### ACT	72.0 TRA MAG Barrel length case / Max. Chg. 36.0 40.0 88.0 109.0 42.0 86.0 91.5 106.0	26" REM Velocity 2228 2248 2612 3652 2562 3450 3462 3502	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175 4350	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL 56.7	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360" 2662	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892 2894
MAGPRO 6-6 Tmm REMI Gun	NGTON ULT PRECISION E 91/2M Ct Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595 7.4 3174 6.9 3265 6.4 3222 OAL = 3.595 2.0 OAL = 3.595	72.0 TRA MAG Barrel length case 7 Max. Chg. 36.0 40.0 88.0 109.0 42.0 86.0 91.5 106.0	26" REM Velocity 2228 2248 3612 3652 2562 3450 3462 3502 2544	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL 56.7 62.1	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360" 2662 2738	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0 63.0 69.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892 2894 2976
MAGPRO 6- 7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3 (L) 168 FPGC 5744 3 HDY 120 SPHF 3100 7: 8700 99 HDY 139 SP 5744 3 3100 7 MAGPRO 99 BAR 140 X 5744 35	## A 1700 **NGTON ULT PRECISION F 91/2M** **OAL = 3.500	72.0 FRA MAG Barrel length ase 7 36.0 40.0 88.0 109.0 42.0 86.0 91.5 106.0 43.0 57.0	26" REM Velocity 2228 2248 2248 3612 3652 2562 3450 3462 3502 2544 3089	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL 56.7 62.1	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360" 2662 2738	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0 63.0 69.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892 2894 2976
MAGPRO 6-6 7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3: (L) 168 FPGC 5744 3: HDY 120 SPHF 3100 7: 8700 9: HDY 139 SP 5744 3: 3100 7: MAGPRO 8: 8700 9: BAR 140 X 5744 5: 3100 7:	NGTON ULT PRECISION E 91/2M Ct Chg. Velocity OAL = 3.500 0.0 1971 OAL = 3.260 1.0 1952 P OAL = 3.595 9.2 3323 8.1 3360 OAL = 3.595 7.4 3174 6.9 3265 6.4 3222 OAL = 3.595 2.0 OAL = 3.595	72.0 TRA MAG Barrel length case 7 Max. Chg. 36.0 40.0 88.0 109.0 42.0 86.0 91.5 106.0	26" REM Velocity 2228 2248 3612 3652 2562 3450 3462 3502 2544	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL 56.7 62.1	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360" 2662 2738	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0 63.0 69.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892 2894 2976
MAGPRO 6-6 7mm REMI Gun HS P Primer REM Powder Start (L) 145 5744 3: (L) 168 FPGC 5744 3: HDY 120 SPHF 3100 7: 8700 9: HDY 139 SP 5744 3: 3100 7: MAGPRO 8: 8700 9: BAR 140 X 5744 5: 3100 7:	## A 18	72.0 FRA MAG Barrel length Case 7 36.0 40.0 88.0 109.0 42.0 86.0 91.5 106.0 43.0 57.0 84.0	26" REM Velocity 2228 2248 2248 3612 3652 2562 3450 3462 3502 2544 3089 3413	BAR 120 4350 3100 8700 HDY 139 4350 3100 8700 NOS 150 4350 3100 8700 NOS 160 4350 3100 8700 NOS 175 4350 3100	X OAL 63.9 68.4 77.4 SBT OAL 62.1 66.6 73.8 BT OAL 58.5 64.8 73.8 SP OAL 58.5 63.5 72.9 SP OAL 56.7 62.1	3.310" 3205 3199 2827 = 3.340" 3030 3048 2695 = 3.350" 2843 2943 2670 = 3.355" 2796 2858 2661 = 3.360" 2662 2738	71.0 76.0 86.0 69.0 74.0 82.0 65.0 72.0 82.0 65.0 70.5 81.0 63.0 69.0	3484 3477 3073 3293 3313 2929 3090 3199 2902 3039 3106 2892 2894 2976

RIFLE DATA 3					4			RIFLE D	ATA
.30 M1	CARBINI	:			.30/30 V	VINCHESTE	R (CONT	'D)	
Gun	DOUGLAS		rrel length	20"	Powder	Start Chg.		Max. Chg.	<u>Velocity</u>
Primer	CCI 400		ISE	REM	(L) 173 F		= 2.550"	00.0	0005
(L) 125 F	Start Chg.	= 1.705"	wax. Crig.	velocity	5744 2015	19.8 23.4	1872 1829	22.0 26.0	2035 1988
No. 9	9.9	1627	11.0	1769	2230	23.4	1798	26.0	1954
5744	12.2	1574	13.5	1711	2460	24.8	1856	27.5	2017
1680	13.5	1616	15.0	1756	2495 2520	24.8 25.7	1852 1889	27.5 28.5	2013 2053
SPR 100	SP OAL 12.0	= 1.675"	10.0	2015	SPR 150		= 2.540"		
No. 9 5744	13.5	1854 1698	13.3 15.0	2015 1846	5744	22.5	1985	25.0	2158
1680	15.3	1695	17.0	1842	2015	26.1	2017	29.0	2192
SPR 110	FMJ OAL	= 1.670"			2230 2460	28.5 29.3	2091 2107	31.7 32.5	2273 2290
No. 9	11.3	1742	12.6	1893	2495	29.5 27.5	2049	30.5	2290
5744	13.1	1644	14.5	1787	2520	30.2	2139	33.5	2325
1680	14.4	1624	16.0	1765	4064	29.7	2065	33.0	2245
7.62x3	Qmm				2700	33.3	2084	37.0	2265
Gun	HS PRECIS	ION Ba	rrel length	20"	NOS 170 5744	21.2	= 2.545" 1838	23.5	1998
Primer	REM 9 ¹ / ₂	Ca		IMI	2015	24.3	1875	27.0	2038
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	2230	27.0	1954	30.0	2124
SRA 110		= 2.115"			2460	27.2	1949	30.2	2118
5744	20.3	2110	22.5	2294	2495 2520	26.6 28.4	1927 1959	29.5 31.5	2095 2129
1680	24.8	2343	27.5	2547	4064	27.0	1837	30.0	1997
2015 2230	25.7 26.6	2089 2047	28.5 29.5	2271 2225	2700	31.5	1930	35.0	2098
2460	26.6	2018	29.5	2194	30/40	KRAG			
SPR 125		= 2.195"			Gun	DOUGLAS	Ва	rrel length	24"
5744 1680	19.4 23.0	1973	21.5 25.5	2145 2368	Primer	CCI 200		ise	REM
2015	25.0 25.7	2179 2124	25.5 28.5	2309	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
2230	26.6	2031	29.5	2208		NGC OAL			
2460	26.6	2002	29.5	2176	5744	25.2	2022	28.0	2198
SRA 150 5744	17.6	= 2.180" 1748	19.5	1900	(L) 180 5744	RNGC OAL 23.9	= 2.900" 1919	26.5	2086
1680	20.3	1891	22.5	2055	(L) 210 F		= 2.925"	20.3	2000
2015	23.4	1906	26.0	2072	(L) 210 F 5744	22.5	1720	25.0	1870
2230	24.3	1818	27.0	1976	-				
2460	24.3	1800	27.0	1956		/INCHEST			0.411
.30/30	WINCHES	STER			Gun Primer	HS PRECIS CCI 200		irrel length ise	24" REM
	BULLETS O				_	Start Chg.			
Gun	HS PRECIS	_	rrel length	20"		RNGC OAL	_	<u></u>	10.00.17
Primer	CCI 200		ise	FED	5744	24.3	2052	27.0	2230
	Start Chg.		Max. Cng.	velocity	(L) 165 S		= 2.700"		
(L) 152 F 5744	N OAL 20.3	= 2.450" 1943	22.5	2112	5744	24.3	1992	27.0	2165
2015	23.0	1828	25.5	1987	SRA 110		= 2.595"	00.0	0040
2230	23.4	1815	26.0	1973	5744 2015	22.1 40.5	2040 2934	36.0 45.0	2918 3189
2460	24.3	1834	27.0	1994	2230	42.8	2917	47.5	3171
2495 2520	25.7 24.8	1885 1844	28.5 27.5	2049 2004	2460	43.7	2938	48.5	3193
2020	24.0	1044	۷۱.۵	2004	2495	42.3	2780	47.0	3022
					2520	42.8	2778	47.5	3020

RII	FLE DATA			3	5			RIFLE D	ATA
	VINCHESTER	(CONT'D)		7.62x54	mm RUSSIA	N (CON		
	r Start Chg.		-	Velocity		Start Chg.	•	•	Velocity
NOS 1	_	= 2.780"			SRA 180	_	= 2.900"		
5744	24.8	2051	34.5	2753	4350	45.9	2297	51.0	2497
2015	39.2	2777	43.5	3018	3100	49.5	2260	55.0	2457
2230 2460	42.3 42.3	2776 2773	47.0 47.0	3017 3014	8700	51.3	1669	57.0	1814
2495	42.3 42.3	2697	47.0 47.0	2931	.30/06	SPRINGF	IELD		
2520	42.8	2719	47.5	2955	Gun	WILSON		arrel length	24"
HDY 1	50 SP OAL	= 2.745"			Primer	CCI 200/250		ase	IMI
5744	27.0	2160	33.5	2551	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
2015	37.4	2543	41.5	2764	(L) 152 F	RN* OAL	= 3.035"		
2230	39.2	2495	43.5	2712	5 744	30.2	2255	33.5	2451
2460 2495	40.5 41.4	2544 2582	45.0 46.0	2765 2806	2015	36.0	2413	40.0	2623
2520	41.4	2584	46.5	2809	2230	36.9	2379	41.0	2586
4064	41.0	2539	45.5	2760	2460	36.9	2390	41.0	2598
2700	43.7	2306	48.5	2506	2495 2520	37.8 37.8	2240 2375	42.0 42.0	2435 2582
SRA 1	68 HPBT OAL	= 2.800"			4064	41.4	2390	46.0	2598
5744	28.0	2150	31.5	2376	8700 (C)	54.0	1840	60.0	2000
2015	36.0	2431	40.0	2642	(L) 180 F	RN* OAL	= 3.015"		
2230	37.8	2401	42.0	2610	5744	28.8	2150	32.0	2337
2460	38.3	2393	42.5	2601	2015	36.0	2272	40.0	2470
2495 2520	40.1 40.5	2442 2495	44.5 45.0	2654 2712	2230	36.9	2228	41.0	2422
4064	38.7	2262	43.0	2571	2460	36.9	2214	41.0	2406
2700	42.3	2294	47.0	2493	2495 2520	37.8 37.8	2254 2219	42.0 42.0	2450 2412
NOS 1		= 2.800"			4064	40.5	2219	45.0	2412
5744	28.0	2117	30.0	2235	8700 (C)	54.0	1839	60.0	1999
2230	36.0	2244	40.0	2439	(L) 210 F	RN* OAI	= 3.195"		
2460	37.4	2276	41.5	2474	5744	27.0	1859	30.0	2021
2495	38.7	2385	43.0	2592	2015	32.4	2013	36.0	2188
2520	40.1	2407	44.5	2616	2230	34.2	2011	38.0	2186
4064	37.8	2269	42.0	2466	2460	34.7	2016	38.5	2191
2700	42.3	2272	47.0	2470	2495	36.0	2054	40.0	2233
NOTE:	Some military ca	ases have l	ower case ca	pacity than	2520	36.0	2053	40.0	2232
	commercial bras				4064 8700 (C)	38.7 54.0	2120 1853	43.0 60.0	2304 2014
	of charge weight loading with mil		. Use extra ca	ution when	HDY 110		= 2.900"	00.0	2014
	loading with him	ilaiy biass.			2015	48.2	= 2.900 3104	53.5	3374
					2230	51.3	3114	57.0	3385
7.62x	34mm RUS				2460	52.7	3147	58.5	3421
Gun	DOUGLAS			24"	2495	52.2	3170	58.0	3446
Primer		Case		NORMA	2520	54.0	3161	60.0	3436
Powde			Max. Chg.	<u>Velocity</u>	4064 (C) 2700	52.2 55.8	3129 3018	58.0 62.0	3401 3280
(L) 180		= 2.830"			SRA 125		= 3.150"	02.0	0200
4350	45.0	2244	50.0	2439	5744	26.0	2046	42.5	3037
3100 8700	47.7 49.5	2156	53.0 55.0	2343 1819	2015	46.8	2934	52.0	3189
		1673	55.0	1019	2230	48.0	2918	53.3	3172
SRA 1		= 2.850"	E4.0	0670	2460	48.2	2875	53.5	3125
4350 3100	48.6 49.5	2459 2268	54.0 55.0	2673 2465	2495	48.6	2962	54.0	3220
8700	49.5 52.2	2200 1746	58.0 58.0	1898	2520 4064	48.6 51.3	2876 3023	54.0 57.0	3126 3286
3,00	0 L.L		00.0	1000	2700	51.3 55.8	2939	62.0	3200 3195
					4350 (C)	54.0	2661	60.0	2892

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. (C) Denotes a compressed load for maximum charge. *CCI 250 primer used.

RIFLE DATA	N .	3	6 RIFLE DATA
.30/06 SPRINGFIE	LD (CONT'D)		.30/06 SPRINGFIELD (CONT'D)
Powder Start Chg	. Velocity Max. Chg.	Velocity	Powder Start Chg. Velocity Max. Chg. Velocity
.30/06 SPRINGFIE Powder Start Chg	LD (CONT'D) Velocity Max. Chg. 2058 41.0 2651 48.0 2636 49.4 2633 49.5 2674 51.5 2640 51.2 2769 52.5 2697 59.0 2590 59.0 2401 59.0 2841 68.0 = 3.295" 2106 38.5 2493 45.5 2493 45.5 2493 45.5 2490 47.0 2467 47.5 2601 51.5 2513 54.0 2599 59.0 2405 59.0		.30/06 SPRINGFIELD (CONT'D)
2700 49.5 4350 (C) 51.3 3100 (C) 53.1 MAGPRO (C) 61.7	2434 55.0 2498 57.0 2402 59.0 2673 65.0	2704 2646 2715 2611 2763	5744 45.0 2650 67.0 3578 4064 74.7 3364 83.0 3657 2700 74.7 3342 83.0 3633 4350 85.5 3456 95.0 3757 3100 (C) 88.7 3421 98.5 3719 8700 (C) 104.0 3169 115.5 3445
NOS 200 SP OAI 2015 37.8 2230 39.2 2460 40.1 2495 38.7 2520 40.5 4064 41.4 2700 46.4 4350 (C) 49.5 3100 (C) 53.1 MAGPRO (C) 58.9 8700 (C) 55.8	= 3.295" 2156	2343 2386 2429 2379 2432 2475 2441 2569 2561 2669 2187	BAR 150 X OAL = 3.600" 5744 40.0 2340 62.0 3216 4064 66.6 2997 74.0 3258 2700 67.5 2990 75.0 3250 4350 76.5 3122 85.0 3394 3100 (C) 80.1 3110 89.0 3380 8700 (C) 102.6 3180 114.0 3456 NOS 165 BT OAL = 3.600" 5744 39.0 2215 61.0 3092 4064 66.6 2868 74.0 3117 2700 64.8 2854 72.0 3102 4350 74.7 2947 83.0 3203 3100 (C) 81.0 3021 90.0 3284 8700 (C) 101.7 3025 113.0 3288

RIFL	E DATA			3	7			RIFLE D	ATA
.300 REM	IINGTON U	LTRA MA	AG (CONT'E))	.300 RE	MINGTON U	LTRA MA	AG (CONT'E))
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	Velocity
SPR 165		= 3.550"			SPR 200		= 3.600"		
5744	40.0	2277	61.0	3062	5744	38.0	2014	56.0	2689
4064	63.9	2838 2852	71.0 73.0	3085	4064	56.7	2448 2496	63.0	2661
2700 4350	65.7 72.5	2972	73.0 80.5	3100 3230	2700 4350	58.5 62.1	2496 2565	65.0 69.0	2713 2788
3100 (C)	79.2	3025	88.0	3288	3100	72.5	2702	80.5	2937
MAGPRO	86.9	3115	96.5	3402	8700	95.4	2869	106.0	3119
8700 (C)	101.7	3099	113.0	3369	SPR 200	GS OAL	= 3.550"		
SWF 165	A-F OAL	= 3.550"			5744	38.0	2043	56.0	2772
5744	38.0	2184	60.0	3044	4064	58.5	2499	65.0	2716
4064	63.9	2846	71.0	3093	2700	60.3	2523	67.0	2742
2700	67.5	2887	75.0	3138	4350	65.7	2633	73.0	2862
4350	76.5	3014	85.0	3276	3100	72.9	2725	81.0	2962
3100 (C)	82.8	3088	92.0	3356	8700 (C)	99.0	2902	110.0	3154
8700 (C)	101.7	2978	113.0	3237	SWF 200		= 3.550"		
	SPBT OAL		E0.0	0007	5744	38.0	2024	56.0	2731
5744 4064	38.0 63.9	2151 2775	59.0 71.0	2937 3016	4064 2700	57.6 65.7	2490 2646	64.0	2706 2876
2700	66.6	2773	71.0 74.0	3036	4350	71.1	2703	73.0 79.0	2938
4350	72.9	2886	81.0	3137	3100	77.4	2777	86.0	3018
3100 (C)	80.1	2996	89.0	3256	8700 (C)	99.9	2866	111.0	3115
8700 (C)	101.7	2994	113.0	3254	SRA 220		= 3.570"	•	00
SPR 180	GS OAI	= 3.550"			5744	38.0	1921	57.0	2615
5744	38.0	2134	58.0	2882	4064	58.5	2381	65.0	2588
4064	64.4	2738	71.5	2976	2700	60.3	2425	67.0	2636
2700	64.4	2737	71.5	2975	4350	62.1	2433	69.0	2645
4350	72.0	2857	80.0	3105	3100	74.7	2651	83.0	2881
3100 (C)	78.3	2927	87.0	3182	8700 (C)	95.4	2732	106.0	2970
MAGPRO		2951	90.0	3193					
8700 (C)	101.7	3040	113.0	3304	.300 W	INCHEST	ER MA	GNUM	
SWF 180 5744	A-F OAL 38.0	= 3.550"	E0 0	2939	Gun	HS PRECIS	ION Ba	arrel length	24"
4064	61.7	2111 2700	59.0 68.5	2935	Primer	CCI 200	Ca	ase	REM
2700	66.6	2763	74.0	3003	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
4350	73.8	2866	82.0	3115	SRA 110	-	= 3.170"		
3100 (C)	80.1	2949	89.0	3205	2520	60.3	3231	67.0	3512
8700 (C)	100.8	2934	112.0	3189	2700	70.7	3364	78.5	3656
NOS 180	PART OAL	= 3.600"			4350	71.6	3258	79.5	3541
5744	38.0	2118	58.0	2892	3100	73.8	3145	82.0	3419
4064	65.7	2743	73.0	2981	HDY 130	SP OAL	= 3.300"		
2700	67.1	2766	74.5	3007	2520	56.7	2978	63.0	3237
4350	73.8	2878	82.0	3128	2700	66.2	3115	73.5	3386
3100 (C)	80.1	2955	89.0	3212	4350	69.3	3108	77.0	3378
8700 (C)	101.7	3057	113.0	3323	3100	73.8	3108	82.0	3378
BAR 180 3 5744	X OAL 38.0	= 3.600" 2063	58.0	2876	SRA 150		= 3.380"	FC 0	0000
4064	63.9	2686	71.0	2920	5744	32.0	2091	52.0	3030
2700	62.6	2652	69.5	2883	2520 4064	52.2	2722	58.0	2959
4350	67.1	2703	74.5	2938	2700	55.8 62.6	2837 2923	62.0 69.5	3084 3177
3100 (C)	77.4	2876	86.0	3126	4350	65.7	2892	73.0	3144
8700 (C)	101.7	3023	113.0	3286	3100	68.4	2859	76.0	3108

 $\begin{tabular}{lll} \textbf{WARNING:} & \textbf{Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.} \\ \textbf{(C) Denotes a compressed load for maximum charge.} \\ \end{tabular}$

RIEL	E DATA			3	8			RIFLE D	ATA
			(CONT'D)			NCHESTER	SHORT N		
			Max. Chg.			Start Chg.		•	•
	HPBT OAL				SPR 200		= 2.760"		
5744 4064	33.0 54.9	2063 2735	51.0 61.0	2899 2973	2700 4350 (C)	54.4 53.8	2528 2514	60.4 59.8	2748 2733
2700	60.3	2722	67.0	2959	+000 (0)	30.0	2017	55.0	2700
4350	64.8	2815	72.0	3060	.300 R	EMINGTO	N SHO	RT	
3100 SDA 190	66.2 SBT OAL	2709	73.5	2945	ACTIO	N ULTRA	MAG		
5744	34.0	2097	49.0	2778	Gun	WISEMAN		rrel length	24"
2700	59.4	2649	66.0	2879	Primer	REM 9½M		Nov Cha	REM Volocity
4350 3100	62.1 64.8	2662 2667	69.0 72.0	2894 2899	HDY 165	Start Chg.	= 2.680"	wax. City.	<u>Velocity</u>
8700	77.4	2588	86.0	2813	5744	20.4	1527	30.5	2120
	HPBT OAL				5744	39.6	2612	44.0	2828
2700 4350	55.8 57.6	2481 2480	62.0 64.0	2697 2696	SPR 150		= 2.800"	CO 0	0101
3100	62.1	2487	69.0	2703	4064 2700 (C)	54.7 60.8	2874 2969	60.8 67.5	3191 3253
8700	77.4	2527	86.0	2747	4350 (C)	61.8	2877	65.0	3060
SRA 220		= 3.300"	4C E	0407		SPBT OAL			
5744 2700	37.0 53.6	2111 2249	46.5 59.5	2497 2445	4064 (C) 2700 (C)	53.6 58.7	2770 2794	59.5 65.2	3062 3126
4350	58.5	2392	65.0	2600	` '	SIR OAL		00.2	0120
3100 8700	60.3 77.4	2355 2478	67.0 86.0	2560 2694	4064 (C)	50.0	2622	55.5	2870
0700	11.4	2470	00.0	2034	2700 (C)	54.5	2676	60.5	2954
					I SPR 200	GS OAL	= 2.680"		
								50.8	2700
			ORT MAG		2700	53.8	2526	59.8	2790
.300 W Gun Primer	INCHEST WISEMAN WIN LR	Ва	ORT MAG arrel length ase	NUM 24" WIN	2700			59.8	2790
Gun Primer	WISEMAN WIN LR	Ba Ca	irrel length ise	24" WIN	2700 .303 B Gun	53.8 RITISH DOUGLAS	2526 Ba	arrel length	24"
Gun Primer <u>Powder</u> SPR 150	WISEMAN WIN LR Start Chg. SP OAL	Ba Ca <u>Velocity</u> = 2.760"	arrel length ase <u>Max. Chg.</u>	24" WIN	.303 B Gun Primer	53.8 RITISH DOUGLAS CCI 250	2526 Ba Ca	arrel length ase	24" REM
Gun Primer Powder SPR 150 2700	WISEMAN WIN LR Start Chg. SP OAL 61.7	Ba Ca <u>Velocity</u> = 2.760" 2984	errel length use Max. Chg. 68.6	24" WIN Velocity 3243	.303 B Gun Primer Powder	53.8 RITISH DOUGLAS CCI 250 Start Chg.	2526 Ba Ca Velocity	arrel length ase	24" REM
Gun Primer Powder SPR 150 2700 4350	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1	Ba Ca <u>Velocity</u> = 2.760"	arrel length ase <u>Max. Chg.</u>	24" WIN <u>Velocity</u>	.303 B Gun Primer	53.8 RITISH DOUGLAS CCI 250 Start Chg. RN OAL 25.2	2526 Ba Ca Velocity = 2.930" 1986	arrel length ase Max. Chg. 28.0	24" REM
Gun Primer Powder SPR 150 2700 4350 MAGPRO	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1	Velocity = 2.760" 2984 3039 2946	Max. Chg. 68.6 71.2	24" WIN Velocity 3243 3303	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015	53.8 RITISH DOUGLAS CCI 250 Start Chg. RN OAL 25.2 34.2	2526 Ba Ca Velocity = 2.930" 1986 2265	arrel length ase Max. Chg. 28.0 38.0	24" REM <u>Velocity</u> 2159 2462
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905	max. Chg. 68.6 71.2 80.5 30.5	24" WIN Velocity 3243 3303 3313 2071	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230	53.8 RITISH DOUGLAS CCI 250 Start Chg. RN OAL 25.2 34.2 35.1	2526 Ba Ca Velocity = 2.930" 1986 2265 2262	mrel length ase Max. Chg. 28.0 38.0 39.0	24" REM Velocity 2159 2462 2459
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6	Bacca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846	68.6 71.2 80.5 30.5 66.2	24" WIN Velocity 3243 3303 3313 2071 3093	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495	53.8 RITISH DOUGLAS CCI 250 Start Chg. N OAL 25.2 34.2 35.1 36.0 39.6	2526 Ba Ca Velocity = 2.930" 1986 2265 2262 2282 2327	28.0 38.0 39.0 40.0 44.0	24" REM Velocity 2159 2462 2459 2480 2529
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905	max. Chg. 68.6 71.2 80.5 30.5	24" WIN Velocity 3243 3303 3313 2071	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520	53.8 RITISH DOUGLAS CCI 250 Start Chg. N OAL 25.2 34.2 35.1 36.0 39.6 36.0	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252	28.0 38.0 39.0 40.0 44.0 40.0	24" REM Velocity 2159 2462 2459 2480 2529 2448
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7	Ba Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828	68.6 71.2 80.5 30.5 66.2 68.5	24" WIN Velocity 3243 3303 3313 2071 3093 3128	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6	2526 Ba Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321	28.0 38.0 39.0 44.0 44.0 44.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881	68.6 71.2 80.5 30.5 66.2 68.5 78.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118	28.0 38.0 39.0 40.0 44.0 42.0 46.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890	68.6 71.2 80.5 30.5 66.2 68.5 78.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100	53.8 RITISH DOUGLAS CCI 250 Start Chg. N OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898	28.0 38.0 39.0 40.0 44.0 42.0 46.0 46.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760"	68.6 71.2 80.5 30.5 66.2 68.5 78.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4 43.2	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898 1500	28.0 38.0 39.0 40.0 44.0 42.0 46.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6 67.5	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984 3024	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4 43.2	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898	28.0 38.0 39.0 40.0 44.0 42.0 46.0 46.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350 MAGPRO	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8 (C) 68.3	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782 2733	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700 HDY 150 5744 2015	53.8 RITISH DOUGLAS CCI 250 Start Chg. N 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4 43.2 SP OAL 27.9 36.9	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898 1500 = 3.010" 2220 2497	28.0 38.0 39.0 40.0 44.0 42.0 46.0 48.0 31.0 41.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063 1630 2413 2714
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350 MAGPRO SWF 180	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8 (C) 68.3 A-F OAL	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782 2733 = 2.760"	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6 67.5 76.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984 3024 3028	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700 HDY 150 5744 2015 2230	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 43.2 SP OAL 27.9 36.9 38.7	2526 Bac Ca Velocity 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898 1500 = 3.010" 2220 2497 2488	28.0 38.0 39.0 40.0 44.0 42.0 46.0 46.0 48.0 31.0 41.0 43.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063 1630 2413 2714 2704
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350 MAGPRO	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8 (C) 68.3 A-F OAL 57.6	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782 2733 = 2.760" 2722	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6 67.5 76.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984 3024 3028 2959	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700 HDY 150 5744 2015	53.8 RITISH DOUGLAS CCI 250 Start Chg. N 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4 43.2 SP OAL 27.9 36.9	2526 Bac Ca Velocity = 2.930" 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898 1500 = 3.010" 2220 2497	28.0 38.0 39.0 40.0 44.0 42.0 46.0 48.0 31.0 41.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063 1630 2413 2714 2704 2728 2727
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350 MAGPRO SWF 180 2700	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8 (C) 68.3 A-F OAL 57.6 58.2	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782 2733 = 2.760"	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6 67.5 76.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984 3024 3028 2959 2989	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700 HDY 150 5744 2015 2230 2460 2495 2520	53.8 RITISH DOUGLAS CCI 250 Start Chg. IN OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 41.4 43.2 SP OAL 27.9 36.9 38.7 39.6 41.4 41.4 41.4	2526 Record Carlotter	28.0 38.0 39.0 40.0 44.0 42.0 46.0 46.0 43.0 44.0 44.0 46.0 46.0 46.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063 1630 2413 2714 2704 2728 2727 2769
Gun Primer Powder SPR 150 2700 4350 MAGPRO SRA 165 5744 2700 4350 MAGPRO NOS 165 2700 4350 SRA 180 2700 4350 MAGPRO SWF 180 2700 4350	WISEMAN WIN LR Start Chg. SP OAL 61.7 64.1 (C) 72.5 SPBT OAL 27.5 59.6 61.7 (C) 70.2 PART OAL 60.7 61.0 SPBT OAL 58.1 60.8 (C) 68.3 A-F OAL 57.6 58.2 X OAL	Bac Ca Velocity = 2.760" 2984 3039 2946 = 2.760" 1905 2846 2878 2828 = 2.760" 2881 2890 = 2.760" 2745 2782 2733 = 2.760" 2722 2750	68.6 71.2 80.5 30.5 66.2 68.5 78.0 67.4 67.8 64.6 67.5 76.0	24" WIN Velocity 3243 3303 3313 2071 3093 3128 3223 3131 3141 2984 3024 3028 2959	2700 .303 B Gun Primer Powder (L) 180 F 5744 2015 2230 2460 2495 2520 4064 2700 4350 3100 8700 HDY 150 5744 2015 2230 2460 2495	53.8 RITISH DOUGLAS CCI 250 Start Chg. N OAL 25.2 34.2 35.1 36.0 39.6 36.0 39.6 37.8 41.4 43.2 SP OAL 27.9 36.9 38.7 39.6 41.4	2526 Record Carlot Page 1986 2265 2262 2282 2327 2252 2321 2127 2118 1898 1500 = 3.010" 2220 2497 2488 2510 2509	28.0 38.0 39.0 40.0 44.0 42.0 46.0 48.0 31.0 41.0 43.0 44.0 44.0	24" REM Velocity 2159 2462 2459 2480 2529 2448 2523 2312 2302 2063 1630 2413 2714 2704 2728 2727

 $\begin{tabular}{lll} \textbf{WARNING:} & \textbf{Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.} \\ \textbf{(C) Denotes a compressed load for maximum charge.} \\ \end{tabular}$

RIF	LE DATA			3	9			RIFLE D	ATA
.303 BR	ITISH (CON	T'D)			8x57mm	n JS (0.323") (CONT'	D)	
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
SRA 180	SP OAL	= 3.000"			HDY 170		= 2.855"		
5744	26.1	2014	29.0	2189	2015	41.0	2490	45.5	2707
2015 2230	34.2	2226	38.0	2420	2230	44.1	2524	49.0	2743 2728
2460	36.0 36.5	2274 2247	40.0 40.5	2472 2442	2460 2520	44.1 45.0	2510 2532	49.0 50.0	2720 2752
2495	39.6	2280	44.0	2478	HDY 220		= 2.990"	00.0	LIOL
2520	39.6	2363	44.0	2568	2015	36.9	2129	41.0	2314
4064	40.5	2334	45.0	2537	2230	37.8	2112	42.0	2296
2700	41.4	2234	46.0	2428	2460	39.2	2157	43.5	2345
4350 3100	41.4 41.4	2098 1879	46.0 46.0	2280 2042	2520	40.5	2163	45.0	2351
			40.0	2042	2700 (C)	47.7 45.0	2247	53.0	2442
.32/20	WINCHE				4350 (C)	45.9	2092	51.0	2274
Gun	MARLIN		arrel length	22"	.338 L	apua ma	GNUM		
Primer	CCI 400		ise	REM	Gun	WISEMAN		rel length	26"
	Start Chg.	-	Max. Chg.	<u>Velocity</u>	Primer	CCI 250	Cas		LAPUA
(L) 100 S		= 1.545"	0.0	1000	<u>Powder</u>	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
5744	8.4	1107	9.3	1203	HDY 200		= 3.560"		
SRA 90		= 1.565"	0.7	1001	5744	36.0	1959	40.0	2129
5744	8.7	1123	9.7	1221	2700 4350	79.2 84.6	3015 3076	88.0 94.0	3277 3344
	XTP OAL	= 1.585" 1134	0.5	1000	3100	88.2	3057	98.0	3323
5744	8.6	1134	9.5	1233	SPR 250		= 3.550"	00.0	0020
.32/40	WINCHES	STER			2700	70.2	2610	78.0	2837
Gun	DOUGLAS	Ba	arrel length	24"	4350	75.6	2705	84.0	2940
Primer	REM 91/2	Ca	ise	REM	3100	80.1	2724	89.0	2961
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	MAGPRO		2672	90.0	2937
(L) 170 F	NGC OAL	= 2.495"				PART OAL			00.47
5744	18.0	1658	20.0	1802	2700 4350	69.5 73.8	2619 2689	77.2 82.0	2847 2923
HDY 170	FN OAL	= 2.575"			3100	73.6 77.6	2707	86.2	2942
5744	18.0	1635	20.0	1777	SPR 275		= 3.555"	00.2	2012
32/40	SCHUET	7FN			2700	68.0	2466	75.6	2680
Gun	DOUGLAS		arrel length	24"	4350	73.4	2549	81.5	2771
Primer	REM 2 ¹ / ₂		arer length	REM	3100	78.3	2588	87.0	2813
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	-	A-F OAL			
(L) 200 F		CH SEAT		tolooity	2700	66.6	2455	74.0	2668
5744	N/A	N/A	11.0	1043	4350 3100	69.5 73.2	2502 2533	77.2 81.3	2720 2753
5744	N/A	N/A	12.5	1138	3100	13.2	2333	01.5	2133
5744	N/A	N/A	14.0	1243	.338 R	EMINGTO	N ULTR	A MAG	
5744	N/A	N/A	15.5	1345	Gun	WISEMAN		rrel length	24"
8x57m	m JS (0.3	323")			Primer			ise	REM
Gun	DOUGLAS		arrel length	24"	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
Primer	CCI 250		ise	REM	` '	PGC OAL			
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	5744	25.0	1595	40.0	2185
HDY 150	SP OAL	= 2.940"		_	HDY 200		= 3.575"	40.0	04.00
2015	42.3	2621	47.0	2849	5744 2700	N/A 74.3	N/A 2866	40.0 82.5	2123 3115
2230	45.5	2674	50.5	2907	4350	81.0	2941	90.0	3197
2460	45.9 47.2	2674	51.0 52.5	2906	3100 (C)	85.5	2968	95.0	3226
2520	47.3	2719	52.5	2955	8700 (C)	100.8	2683	112.0	2916

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. (C) Denotes a compressed load for maximum charge.

RIFLE DATA		4	0			RIFLE D	ATA
.338 REMINGTON ULTRA N	IAG (CONT'I	0)	.338 WII	NCHESTER	MAGNUN	(CONT'D)	
Powder Start Chg. Velocit	y Max. Chg.	Velocity	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
HDY 225 SP OAL = 3.575			-	SSP OAL			
5744 N/A N/A	40.0	2083	5744	40.0	2036	45.0	2258
2700 72.0 2673 4350 79.2 2798	80.0 88.0	2905 3041	2495 2520	45.0 47.7	2063 2112	50.0 53.0	2242 2296
3100 (C) 82.8 2796	92.0	3039	4064	49.5	2160	55.0	2348
8700 (C) 95.4 2559	106.0	2781	2700	57.2	2255	63.5	2451
SRA 250 SPBT OAL = 3.575	"		4350	57.6	2262	64.0	2459
5744 N/A N/A	42.0	2113	3100	61.2	2237	68.0	2432
2700 64.8 2494	72.0	2711	8700	70.2	2113	78.0	2297
4350 74.3 2631	82.5	2860	.35 RE	MINGTON	I		
3100 (C) 78.8 2645	87.5	2875	Gun	DOUGLAS		rrel length	24"
8700 (C) 93.6 2472	104.0	2687	Primer	CCI 200		ise	REM
SWF 275 A-F OAL = 3.490 5744 N/A N/A	, 44.0	2082	Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>
2700 59.4 2273	66.0	2471	(L) 200 F	RN OAL	= 2.410"	_	-
4350 66.6 2379	74.0	2586	2230	29.3	1756	32.5	1909
3100 (C) 75.6 2480	84.0	2696	2460	30.6	1804	34.0	1961
8700 (C) 88.2 2291	98.0	2490	2520	34.2	1917	38.0	2084
			SPR 180		= 2.465"	00.5	0004
.338 WINCHESTER MA	AGNUM		2230 2460	32.9 33.3	1896 1922	36.5 37.0	2061 2089
Gun HS PRECISION	Barrel length	24"	2520	35.3 35.1	1952	39.0	2122
Primer CCI 250	Case	FED	SRA 200		= 2.470"	00.0	LILL
Powder Start Chg. Velocit	y Max. Chg.	Velocity	2230	31.5	1823	35.0	1982
(L) 200 FNGC OAL = 3.200		-	2460	33.3	1866	37.0	2028
5744 28.0 1815	38.0	2302	2520	35.1	1905	39.0	2071
HDY 200 SP OAL = 3.335	,"		.35 WH	IFI FN			
5744 36.0 2061	52.0	2790	Gun	DOUGLAS	Ba	rrel length	24"
2495 51.3 2582 2520 56.3 2616	57.0	2807	Primer	CCI 200		ise	REM
4064 56.7 2632	62.5 63.0	2843 2861	Powder	Start Chg.	Velocity	Max. Chg.	Velocity
2700 63.5 2666	70.5	2898		RNGC OAL	-		
4350 65.7 2714	73.0	2950	5744	34.2	2256	38.0	2452
3100 68.4 2606	76.0	2833	(L) 250 S	SIL OAL	= 3.250"		
8700 72.0 2119	80.0	2303	5744	32.4	1999	36.0	2173
HDY 225 SP OAL = 3.340		0505	(L) 280 F	RNGC OAL	= 3.050"		
2495 48.6 2378 2520 50.4 2373	54.0 56.0	2585 2579	5744	30.6	1854	34.0	2015
4064 54.5 2486	60.5	2702	HDY 200		= 3.140"		
2700 59.4 2487	66.0	2703	2015	48.6	2574	54.0	2798
4350 63.5 2576	70.5	2800	2230	49.5	2487	55.0	2703
3100 65.7 2467	73.0	2682	2460 2520	51.3 52.7	2510 2535	57.0 58.5	2728 2755
8700 71.1 2067	79.0	2247	2700 (C)	58.5	2524	65.0	2744
SRA 250 SBT OAL = 3.340			4350 (C)	53.1	2168	59.0	2357
5744 38.0 2056	47.0	2466	3100 (C)	54.0	1967	60.0	2138
2495 46.8 2249 2520 50.4 2276	52.0 56.0	2445 2474		SBT OAL			
4064 52.2 2344	58.0	2548	2015	44.1	2350	49.0	2554
2700 56.7 2343	63.0	2547	2230 2460	47.3 48.6	2367 2404	52.5 54.0	2573 2613
4350 58.5 2379	65.0	2586	2520	48.6 49.5	2391	54.0 55.0	2513 2599
3100 63.9 2398	71.0	2607					
8700 72.9 2151			2700	55.4	2393	61.5	2601
	81.0	2338	4350 (C) 3100 (C)	55.4 53.1 54.0	2393 2217 1992	51.5 59.0 60.0	2601 2410 2165

 $\begin{tabular}{lll} \textbf{WARNING:} & \textbf{Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.} \\ \textbf{(C) Denotes a compressed load for maximum charge.} \\ \end{tabular}$

RIF	LE DATA			4	1			RIFLE D	ATA
.35 WHE	LEN (CON	Γ'D)			.375 REM	INGTON U	LTRA MA	G (CONT'D))
Powder	Start Chg.	Velocity	Max. Chg.	Velocity				Max. Chg.	•
SPR 250 2015 2230	SP OAL 42.8 45.9	= 3.245" 2218 2235	47.5 51.0	2411 2429	HDY 270 S 2700 4350 (C)	_	= 3.555" 2646 2706	93.0 99.0	2876 2941
2460 2520 2700 (C) 4350 (C)		2237 2218 2237 2193	51.5 52.0 60.0 60.0	2432 2411 2431 2384	SWF 270 / 2700 4350 (C) HDY 300 F	81.0 88.2	= 3.550" 2606 2705 = 3.570"	90.0 98.0	2833 2940
3100 (C)	54.0	1965	60.0	2136	2700 4350 (C)	81.9 87.3	2511 2575	91.0 97.0	2729 2799
.э/эп Gun	&H MAGN DOUGLAS		arrel length	25"	BAR 300 X 2700	73.8	= 3.575" 2392	82.0	2600
Primer	REM 91/2M		irrer rerigili ise	WIN	4350 (C)	82.8	2471	92.0	2686
Powder	Start Chg.	Velocity	Max. Chg.	<u>Velocity</u>					
SRA 200	FN OAL	= 3.375"			.38/55 V	VINCHES	STER		
5744 SPR 235	40.0 SP OAL	2058 = 3.450"	60.0	2902		DOUGLAS CCI 300		arrel length ase	24" WIN
2520	63.9	2645	71.0	2875	Powder S	Start Chg.	Velocity	Max. Chg.	Velocity
2700 4350 (C) 3100 (C)	72.0 77.4 77.4	2649 2608 2362	80.0 86.0 86.0	2879 2835 2567	(L) 240 FN 5744 2015		= 2.510" 1473 1788	22.0 31.5	1601 1943
HDY 270	SP OAL	= 3.570"			2495 (C)	34.2	1858	38.0	2020
5744	43.0	2077	54.0	2489		N OAL		00.0	
2700 (C) 4350 (C) 3100 (C)		2476 2494 2317	80.0 84.0 86.0	2691 2711 2519	5744 2015	23.0 32.4	1705 1961	25.5 36.0	1853 2132
SRA 300	SBT OAL	= 3.585"			2495 (C)	36.0	1874	40.0	2037
5744 2700 4350 (C) 3100 (C)	46.0 67.5 71.1 74.7	2021 2346 2343 2257	51.0 75.0 79.0 83.0	2217 2550 2547 2453	HDY 220 F 5744 2015 2495 (C)	21.2 28.8 34.2	= 2.580" 1516 1735 1881	23.5 32.0 38.0	1648 1886 2045
. ,	RN OAL	= 3.560"			BAR 255 S		= 2.475"		
2700 4350 (C) 3100 (C)	60.3 67.5 65.7	2078 2167 1938	67.0 75.0 73.0	2259 2355 2106	5744 2015 2495 (C)	19.4 26.8 32.4	1277 1485 1589	21.5 29.8 36.0	1388 1614 1727
.375 R	EMINGTO	N ULTR	A MAG		_	MINGTO	_	-	
Gun Primer	WISEMAN REM 9½		arrel length ase	26" REM	Primer F	DOUGLAS REM 9½M	Ca	arrel length ase	REM
Powder	Start Chg.	Velocity	Max. Chg.	<u>Velocity</u>				Max. Chg.	<u>Velocity</u>
SPR 235 4350 (C)	SP OAL 92.7	= 3.595" 2896	103.0	3148	(L) 350 FN 5744	49.5	= 3.430" 2086	55.0	2267
	SBT OAL				BAR 350 X 2015	67.5	= 3.680" 2409	75.0	2618
5744 2700	43.2 86.4	1937	48.0 96.0	2105 3018	2230	71.1	2433	79.0	2645
4350 (C)	89.1	2777 2793	99.0	3036	2460	71.1	2402	79.0	2611
	PART OAL				2520	70.2	2358	78.0	2563
2700	81.9	2676	91.0	2909	4064 2700 (C)	74.7 77.4	2337 2333	83.0 86.0	2540 2536
4350 (C)	86.6	2732	96.2	2970	4350 (C)	72.0	2043	80.0	2221

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. (C) Denotes a compressed load for maximum charge.

RIFI	E DATA			4	2			RIFLE D	ATA
.416 REI	MINGTON M	IAGNUM ((CONT'D)		.444 MA	RLIN (CON	T'D)		
	Start Chg.			Velocity		Start Chg.	•	Max. Chg.	Velocity
HDY 400 2015 2230	_	= 3.580" 2200	70.0	2391	SRA 240 5744	JHC OAL 33.3	= 2.520" 1903	37.0	2069
2460 2520	66.6 67.5	2190 2192 2194	73.0 74.0 75.0	2380 2383 2385	HDY 265 5744	31.5	= 2.570" 1769	35.0	1923
4064 2700 4350 (C)	72.0 76.5 78.3	2225 2247 2253	80.0 85.0 87.0	2419 2442 2449	.450 M Gun Primer	DOUGLAS CCI 250		arrel length	24" REM
						Start Chg.			
.416 R	GBY				(L) 300 F		= 2.550"	wax. Ong.	velocity
Gun Primer	DOUGLAS FED 215		irrel length ise	26" FED	5744 (L) 405 F	38.7	1928 = 2.550"	43.0	2096
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	5744	36.0	1716	40.0	1865
(L) 350 F	_	= 3.480"		-	SRA 300	FNHP OAL	= 2.550"		
5744	49.5	1999	55.0	2173	5744	43.2	2034	48.0	2211
SPR 400		= 3.635"			1680	52.2	2198	58.0	2389
3100	90.0	2150	100.0	2337	2015 (C) 2230	54.9 58.1	2217 2226	61.0 64.5	2410 2420
8700 (C)	108.0	1968	120.0	2139	2460 (C)		2214	67.0	2420
					2495 (C)		2001	66.0	2175
.40/65	WINCHES	STER			2520 (C)		2034	63.0	2211
Gun	C. SHARPS		rrel length	36"	SPR 350	FNHP OAL	= 2.550"		
Primer	WIN WLR		ise	WIN	5744	39.4	1813	43.8	1971
Powder	Start Chg.	Velocity	Max. Chg.	Velocity	1680	46.1	1919	51.2	2086
(L) 260 F		= 2.540"			2015 (C)	50.0	2030	55.5	2207
5744	23.4	1519	26.0	1651	2230 (C) 2460 (C)	55.8 55.8	2067 2010	62.0 62.0	2247 2185
(L) 300 F	N OAI	= 2.660"			2495 (C)	54.9	1892	61.0	2057
5744	21.6	1394	24.0	1515	2520 (C)		1982	62.0	2154
2495	38.7	1724	43.0	1874	2700 (C)	55.8	1719	62.0	1869
8700 (C)	54.0	1312	60.0	1426	SPR 400	FN OAL	= 2.550"		
(L) 350 S	P OAL	= 2.660"			5744	36.9	1688	41.0	1835
5744	20.7	1321	23.0	1436	1680	41.4	1732	46.0	1883
2495	36.0	1627	40.0	1768	2015	47.3	1883	52.5	2047
8700 (C)	48.6	1155	54.0	1255	2230 (C) 2460 (C)		1877 1909	55.4 60.0	2040 2075
(L) 400 S 5744		= 2.830"	22.0	1064	2495 (C)	49.5	1689	55.0	1836
2495	20.7 33.3	1255 1502	23.0 37.0	1364 1633	2520 (C)	53.1	1875	59.0	2038
8700 (C)	46.8	1088	52.0	1183	2700 (C)	53.1	1620	59.0	1761
(-)					45/70	TDAD DC	AD CD	DINCEIEI	D
.444 M	A DI INI					TRAP DO	JUN 37	HINGFIEL	.U—
		ъ.		0.411	LEVEL				
Gun Primer	DOUGLAS REM 9½		irrel length ise	24" REM	Gun Primer	DOUGLAS CCI 200	Barrel le Case		NICKEL
Powder	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	<u>Powder</u>	Start Chg.	<u>Velocity</u>	Max. Chg.	<u>Velo</u> city
(L) 200 F 5744	N OAL 34.2	= 2.560" 2047	38.0	2225	(L) 300 F 5744		= 2.550" 1469	31.0	1597
(L) 240 S 5744	32.4	= 2.570" 1887	36.0	2051	(L) 405 F 5744	PB OAL 24.8	= 2.560" 1247	27.5	1355
HDY 200 5744	XTP OAL 36.0	= 2.520" 2113	40.0	2297	(L) 500 F 5744	PBRN OAL 22.5	= 2.850" 1112	25.0	1209

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3. (C) Denotes a compressed load for maximum charge.

RIFLE	DATA			4	43 RIFLE DATA					
.45/70 TRA	P DOOR	SPRINGF	TELD (CON	NT'D)	.45/70 GOVERNMENT (CONT'D)					
Powder St	art Chg.	<u>Velocity</u>	Max. Chg.	<u>Velocity</u>	Powder	Start Chg.	-	Max. Chg.	<u>Velocity</u>	
(L) 500 SCH 5744	M OAL 22.8	= 3.010" 1121	25.3	1219	HDY 350 2015	RN OAL 47.7	= 2.550" 1777	53.0	1932	
(L) 530 POS			20.0	12.10	2495	54.9	1892	61.0	2057	
5744	20.2	1084	22.4	1178	2700 4350	54.9 58.5	1650 1596	61.0 65.0	1794 1735	
SPR 400 JS 5744	P OAL 23.4	= 2.560" 1078	26.0	1172	3100	58.5	1463	65.0	1590	
					SPR 400 5744	FN OAL 27.9	= 2.560" 1319	31.0	1434	
.45/70 GC	VERN	MENT (R	UGER, MA	RLIN,	2015	44.1	1620	49.0	1761	
SHARPS, W		TER)—LE	VEL 2		2495 2700	49.5 49.5	1689 1479	55.0 55.0	1836 1608	
	OUGLAS N WLR	Bai Ca:	rrel length	24" WIN	4350 (C)	54.0	1444	60.0	1570	
Powder St					3100 (C) 8700 (C)	54.0 54.0	1336 913	60.0 60.0	1452 992	
(L) 300 PB		= 2.550"			HDY 500		= 2.580"	00.0		
5 744	34.2	1727	38.0	1877	5744	27.9	1369	31.0	1488	
(L) 378 RN		= 2.565"			2015	36.0	1308	40.0	1422	
2015	44.1	1675	49.0	1821	2495 2700	41.4 41.4	1415 1221	46.0 46.0	1538 1327	
2495	49.5	1780 1492	55.0	1935 1622				40.0	1021	
4350 3100	54.0 54.0	1366	60.0 60.0	1485	HDY 500 4350	52.2	= 2.795" 1474	58.0	1602	
8700	54.0	944	60.0	1026				30.0	1002	
(L) 405 FN		= 2.550"			HDY 500 3100	54.0	= 2.825" 1326	60.0	1441	
5744	29.7	1462	33.0	1589	8700	54.0	950	60.0	1033	
2015	48.6	1532	54.0	1665	0,00	01.0	000	00.0	1000	
2495	48.6	1657	54.0	1801	45/00	WINCHE	TED			
4350	50.4	1356	56.0	1474		WINCHES				
3100 8700	54.0 54.0	1308 1072	60.0 60.0	1422 1165	Gun Primer	WISEMAN CCI 250		arrel length ase	30" BELL	
(L) 500 FN	OAL	= 2.550"			Powder	Start Chg.	Velocity	Max. Chq.	Velocity	
2015	37.8	1442	42.0	1567	(L) 300 P	-	= 2.810"			
2495	44.1	1536	49.0	1670	5744	35.1	1637	39.0	1779	
2700	42.3	1301	47.0	1414	(L) 405 P	B OAI	= 2.910"			
4350	52.2	1455	58.0	1582	5744	31.5	1411	35.0	1534	
(L) 500 FN 3100	54.0	= 2.795" 1374	60.0	1493	(L) 500 S	CHM OAL	= 3.300"			
8700	54.0	920	60.0	1000	<u>5</u> 744	29.3	1300	32.5	1413	
(L) 500 SCH	M OAL	= 3.010"								
5744	28.4	1340	31.5	1456	.45/110	SHARPS	2 ⁷ /8"			
(L) 530 POS		= 2.950"			Gun	WISEMAN		rrel length	30"	
5744	26.6	1251	29.5	1360	Primer	CCI 250		ise	HDS	
SRA 300 HP		= 2.550"			<u>Powder</u>	Start Chg.		Max. Chg.	<u>Velocity</u>	
5744	31.5	1568	35.0	1704	(L) 300 P	B OAL	= 3.300"			
2015 2495	53.1 59.4	1991 2001	59.0 66.0	2164 2175	5744	39.6	1788	44.0	1944	
2700	58.5	1784	65.0	1939	(L) 405 P		= 3.350"			
4350	63.0	1670	70.0	1815	5744	34.7	1487	38.5	1616	
3100	63.0	1569	70.0	1705		CHM OAL		27.0	1500	
					5744	33.3	1400	37.0	1522	

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.

RIFLE DATA		4	4 RIFLE DATA
.45/120 SHARPS 31/4"			.50/140 SHARPS 31/4"
	arrel length ase	30" HDS	Gun C. SHARPS Barrel length 30" Primer FED 215 Case ELDORADO
Powder Start Chg. Velocity	Max. Chg.	<u>Velocity</u>	Powder Start Chg. Velocity Max. Chg. Velocity
(L) 300 PB OAL = 3.700" 5744 45.9 1974	51.0	2146	(L) 440 SP OAL = 3.785" 5744 49.5 1820 55.0 1978
(L) 405 PB OAL = 3.815" 5744 42.3 1729	47.0	1879	(L) 550 FN OAL = 3.735" 5744 45.0 1597 50.0 1736
(L) 500 SCHM OAL = 4.075" 5744 39.2 1555	43.5	1690	.50 BROWNING
(L) 570 JONES OAL = 4.000" 5744 36.9 1437	41.0	1562	Gun FRESHOUR Barrel length 44" Primer CCI 35 Case IMI
SPR 400 JFN OAL = 3.700" 5744 41.0 1641	45.5	1784	Powder Start Chg. Velocity Max. Chg. Velocity MIL 642 FMJ OAL = 5.545" 205.2 2696 228.0 2930
458 WINCHESTER MA	GNUM		8700 205.2 2696 228.0 2930 MIL 750 FMJ OAL = 5.545"
Gun DOUGLAS Ba	arrel length ase	24" REM	8700 196.2 2484 218.0 2700
Powder Start Chg. Velocity	Max. Chg.	<u>Velocity</u>	
(L) 375 RN OAL = 3.000" 5744 46.8 2061	52.0	2240	
(L) 400 FN OAL = 3.000" 5744 45.9 1996	51.0	2170	
(L) 455 RN OAL = 3.110" 5744 44.1 1860	49.0	2022	
(L) 500 RN OAL = 3.170" 5744 42.3 1749	47.0	1901	
.50/70 GOVERNMENT			
Gun C. SHARPS Ba	arrel length ase	30" DGW	
Powder Start Chg. Velocity	Max. Chg.	<u>Velocity</u>	
(L) 425 SP OAL = 2.275" 5744 27.0 1305	30.0	1419	
(L) 550 FN OAL = 2.200" 5744 22.5 1111	25.0	1208	
.50/90 SHARPS 2 ¹ / ₂ "			
Gun C. SHARPS Barrel le Primer FED 215 Case	•	ORADO	
Powder Start Chg. Velocity			
(L) 365 FN OAL = 2.870" 5744 38.7 1651	43.0	1795	
(L) 440 SP OAL = 3.000" 5744 34.2 1432	38.0	1557	
(L) 550 FN OAL = 2.925" 5744 31.5 1298	35.0	1411	
(L) 700 SPTZ OAL = 3.125" 5744 31.5 1181	33.0	1246	

WARNING: Always start at MINIMUM loads listed above as START CHG. See explanation on page 3.

NOTE: VERIFY POWDER CHARGE WITH A SCALE PRIOR TO LOADING

Load Bushing Data

	Horna	dy 366/APEX I	Presses		MEC Single Stage Presses						
Desired Grains	SOLO 1000 Bushing	SOLO 1250 Bushing	No. 2 Improved Bushing	Nitro 100 Bushing	Bushing	SOLO 1000 Grains	SOLO 1250 Grains	No. 2 Improved Grains	Nitro 100 Grains		
13.0 13.5 14.0 14.5 15.0 15.5 16.0 17.0 17.5 18.0 18.5 20.0 21.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 23.5 24.0 25.5 25.0 26.0 27.0 27.5 28.0 29.5 29.0 29.5 29.0 29.5 29.0 29.5 29.0 29.5 29.0 29.5 29.0 29.0 29.0 29.0 29.0 29.0 29.0 29.0	387 393 399 408 411 417 420 429 435 435 438 441 447 453 459 468 474 480	354 360 369 378 384 390 396 402 408 414 420 426 429 435 441 447 453 456 459 465 471 477 480 486 492 495 501 502 501 502 502 503 513 516 522 525 531 537 — 543 549 558 558	351 357 363 366 372 378 384 387 396 402 408 411 417 420	366 372 375 381 387 393 405 411 417 423 429 435 441 447 453 456 457 465	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 39 40 40 41 41 42 42 43	16.0 16.3 17.3 18.0 18.8 19.2 20.8 21.4 22.0 22.8 23.3 24.5 25.3 26.3	13.9 14.2 14.7 15.0 15.6 16.1 17.0 17.9 18.4 19.4 19.4 19.2 20.5 21.2 22.3 23.7 24.6 25.2 26.4 26.7 28.3 29.1 29.6 30.2 31.9 32.4 33.6 34.4 35.5	17.0 18.0 18.7 19.4 20.2 20.5 21.6 22.6 23.5	15.5 16.3 17.0 17.5 18.3 19.1 19.7 20.3 20.8 22.8 22.3 23.0 23.9		
·	Ponsi	ness-Warren P	resses			MEC	Progressive P	resses			
Bushing Letter	SOLO 1000 Grains	SOLO 1250 Grains	No. 2 Improved Grains	Nitro 100 Grains	Bushing Number	SOLO 1000 Grains	SOLO 1250 Grains	No. 2 Improved Grains	Nitro 100 Grains		
D1 E E1 E2 F F F F F F F F F F F F F F F F F F	14.3 14.5 15.9 16.4 17.5 18.5 19.7 20.4 20.7 21.4 22.1 23.5 24.0 24.6	12.0 13.7 14.0 14.5 15.5 15.7 17.7 19.0 19.5 20.3 20.8 21.4 22.5 25.0 25.5 26.0 26.3 28.0 32.0 32.0 32.5	17.0 18.4 19.0 20.2 20.5 22.7 23.0 24.5	10.7 11.9 12.5 13.1 13.9 14.1 15.6 15.9 16.7 17.2 17.9 18.7 19.1 20.2 20.3 22.5 23.0 23.7 24.0	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 40 40 41 41 41 41 41 42 42 43	14.2 14.5 15.5 16.2 17.0 19.0 19.6 20.2 21.0 21.5 22.0 22.7 23.5 24.5	13.5 13.9 14.4 14.8 15.5 16.0 16.8 17.5 18.0 18.9 19.6 20.1 21.0 22.0 22.6 23.2 25.0 26.5 28.0 26.5 28.9 29.5 30.1 33.0 34.0 35.0	17.0 18.0 18.7 19.4 20.2 20.5 21.6 22.6 23.5	14.5 15.2 15.7 16.5 17.3 17.9 18.5 19.0 19.7 20.5 21.2 22.1		

NOTE:	VERIFY POWDER CHARGE WITH A SCALE
	PRIOR TO LOADING

Load Bushing Data

								LEE AU	TO-DISK	CAVITI	ES							
Powder	0.	.30	0.3	2	0.3	4	0.37	0.40		.43	0.46	0.49	9	0.53	0.57	0	.61	0.66
NITRO100	2	.2	2.4		2.5	,	2.7	3.0	3	1.2	3.4	3.6		3.9	4.2		1.5	4.9
No. 2I	2	.9	3.0)	3.3		3.5	3.8	4	.1	4.4	4.6		5.0	5.4		5.8	6.3
No. 5	4	.8	5.1		5.5	;	5.9	6.4	6	i.9	7.4	7.9		8.5	9.2		9.8	10.6
No. 7		.6	4.9		5.2		5.7	6.1		6.6	7.0	7.5	- 1	8.1	8.7		9.3	10.1
No. 9		.6	4.9		5.2		5.6	6.1		5.5	7.0	7.5	- 1	8.1	8.7		9.3	10.1
1680		.6	4.9		5.2		5.6	6.1		.6	7.0	7.5		8.1	8.7		9.3	10.1
XMR2015	4	.1	4.4	.	4.7	.	5.1	5.5	5	i.9	6.3	6.7	.	7.3	7.8	8	3.4	9.0
2230		.6	4.9	- 1	5.2		5.6	6.1		5.5	7.0	7.5		8.1	8.7		9.3	10.0
2460		.6	4.9	- 1	5.2		5.6	6.1		6.6	7.0	7.5	- 1	8.1	8.7		9.3	10.1
XMR2495		.0	4.3	- 1	4.5		4.9	5.3		5.7	6.1	6.5		7.1	7.6		3.2	8.8
2520		.4	4.7	- 1	5.0		5.4	5.9		i.3	6.7	7.2	- 1	7.8	8.4		3.9	9.7
2700	4	.4	4.7	,	5.0)	5.4	5.8	6	i.3	6.7	7.2		7.7	8.3	8	3.9	9.6
XMR4350	4	.1	4.3	3	4.6	;	5.0	5.4	5	i.8	6.2	6.6		7.2	7.7	8	3.2	8.9
XMR3100		.0	4.3	- 1	4.5		4.9	5.3		5.7	6.1	6.5		7.1	7.6		3.2	8.8
8700		.4	4.7	- 1	4.9		5.4	5.8		i.3	6.7	7.1	- 1	7.7	8.3		3.9	9.6
SOLO 1000		2.3	2.4	- 1	2.6		2.8	3.0		1.2	3.5	3.7		4.0	4.3		1.6	5.0
XMP 5744		.0	4.2		4.5		4.9	5.3		5.7	6.1	6.5		7.0	7.5		3.1	8.7
	-						LEE	AUTO-D	ISK CAV	ITIES-	Cont'd.							
Powder	0.	.71	0.7	6	0.8	2	0.88	0.95	1.	.02	1.09	1.18	В	1.26	1.36	1	.46	1.57
NITRO100		5.3	5.	6	6.	1	6.5	7.0		7.6	8.1	8.	7	9.3	10.1	1	0.8	11.6
No. 2I	- 1 (6.8	7.	3	7.	8	8.4	9.0	-	9.8	10.4	11.3	3	12.0	13.0	1	3.9	15.0
No. 5		1.4	12.	- 1	13.		14.1	15.3		6.4	17.5	18.9	- 1	20.2	21.8		3.4	25.2
No. 7		0.9	11.	- 1	12.		13.5	14.5		5.6	16.7	18.	- 1	19.3	20.8		2.4	24.0
No. 9		0.8	11.	- 1	12.		13.4	14.5		5.5	16.6	18.0	- 1	19.2	20.7		2.2	23.9
1680		0.8	11.	- 1	12.		13.4	14.5		5.6	16.6	18.0	- 1	19.2	20.8		2.3	24.0
XMR2015		9.7	10.	- 1	11.		12.1	13.0		4.0	14.9	16.	- 1	17.3	18.6		0.0	21.5
2230		0.8	11.	- 1	12.		13.4	14.5		5.5	16.6	18.0	- 1	19.2	20.7		2.2	23.9
2460		0.8	11.	- 1	12.		13.4	14.5		5.5	16.6	18.0	- 1	19.2	20.7		2.2	23.9
XMR2495		9.5	10.	- 1	11.		11.8	12.7		3.6	14.6	15.8	- 1	16.8	18.2		9.5	21.0
2520		0.4	11.	- 1	12.		12.9	13.9		4.9	16.0	17.3	- 1	18.5	19.9		1.4	23.0
2700		0.4	11.		12.		12.9	13.9		4.9	15.9	17.		18.4	19.9		1.3	22.9
XMR4350		9.6	10.	- 1	11.		11.9	12.8		3.8	14.7	16.0		17.0	18.4		9.7	21.2
XMR3100		9.5	10.		11.		11.8	12.7		3.6	14.6	15.8	- 1	16.8	18.2		9.5	21.0
8700		0.3	11.		11.5		12.8	13.8		4.8	15.8	17.		18.3	19.8		1.2	22.8
SOLO 1000		5.3	5.		6.		6.6	7.1		7.7	8.2	8.9		9.5	10.2		1.0	11.8
XMP 5744		9.4	10.		10.		11.6	12.6		3.5	14.4	15.0		16.7	18.0		9.3	20.7
									EE DIPP									
Powder	0.30	0.5	10	0.70	1.	00	1.30	1.60	1.90	2.20	2.50	2.8	0 3	.10 ;	3.40	3.70	4.00	4.30
		+-	+		+	-					+	_		_		-		
NITRO100	2.2		.7	5.2 6.7		7.4	9.6	11.9	14.1	16.3	18.5				25.2	27.4	29.7	31.9
No. 2l	2.9		.8	6.7			12.4	15.3	18.2	21.0	23.8	26.		- 1	32.5	35.3	38.2	41.0
No. 5	4.8		.0	11.2			20.9	25.7	30.5	35.3	40.1	45.		- 1	54.6	59.4	64.2	69.0
No. 7	4.6		.7	10.7			19.9	24.5	29.1	33.7	38.3			- 1	52.1	56.7	61.2	65.8
No. 9	4.6		.6	10.7			19.8	24.4	28.9	33.5	38.1	42.		- 1	51.8	56.4	60.9	65.5
1680 VMD2015	4.6		.6	10.7			19.8	24.4	29.0	33.6	38.2			- 1	51.9	56.5	61.0	65.6
XMR2015	4.1		.8	9.6			17.8	21.9	26.0	30.1	34.2				46.6	50.7	54.8	58.9
2230	4.6		.6	10.7			19.8	24.4	28.9	33.5	38.1	42.		- 1	51.8	56.3	60.9	65.5
2460	4.6		.6	10.7			19.8	24.4	28.9	33.5	38.1	42.		- 1	51.8	56.4	60.9	65.5
XMR2495	4.0		.7	9.4			17.4	21.4	25.4	29.4	33.4	37.		- 1	45.4	49.4	53.5	57.5
2520	4.4		.3	10.3			19.0	23.4	27.8	32.2	36.6	41.		- 1	49.8	54.2	58.6	63.0
2700	4.4		.3	10.2			19.0	23.4	27.7	32.1	36.5			- 1	49.7	54.0	58.4	62.8
XMR4350	4.1		.8	9.5			17.6	21.6	25.7	29.7	33.8			- 1	46.0	50.0	54.1	58.1
XMR3100	4.0		.7	9.4			17.4	21.4	25.4	29.4					45.4	49.4	53.5	57.5
8700	4.4		.3	10.2			18.9	23.3	27.6	32.0				- 1	49.4	53.8	58.2	62.5
SOLO 1000 XMP 5744	2.3 4.0		.8 .6	5.3 9.3		7.5 3.2	9.8 17.2	12.0 21.1	14.3 25.1	16.5 29.1	18.8 33.0			- 1	25.6 44.9	27.8 48.9	30.1 52.9	32.3 56.8
AWIF J/44	4.0	1 0		5.0	<u> </u>	J. Z		EE CHAF				37.	<u> </u>	1.0	T+.0	₹0.0	JL.3	JU.0
Powder	.095	.100	.10	5	110	.116	.122	.128	.134	.141	.148	.151	.155	.163	.171	.180	.189	.198
			\vdash	+				-			_			_	-		-	-
NITRO100 SOLO 1000	11.3 11.4	11.9 12.0	12.		3.0	13.8 13.9	14.5 14.7	15.2 15.4	15.9 16.1	16.7 17.0	17.6 17.8	17.9 18.2	18.4 18.6	19.3 19.6	20.3	21.4	22.4 22.7	23.5 23.8
									<u> </u>		\Box			1				

SHOTSHELL DATA

The data that follows was developed in test barrels with a bore diameter of 0.725" for 12-guage. Some overbored barrels may give different pressures and velocities.

Please note that after setting up your loading machine for the specific combination of components that you desire, BE SURE TO WEIGH THE INITIAL POWDER CHARGES THROWN BY THE CHARGE BAR. Because of many variable conditions, seldom does the charge thrown match up exactly with the charge listed in the load bushing tables. These variations can be caused by humidity changes, bulk density variations of the powder, and the way each machine is operated. Please use caution when you start reloading on a specific day or when you change component lots.

	12-Ga., 2 ³ / ₄ Overall Le 2 ⁹ / ₃₂ -IN.			ype Shells Crimp Depth: ² / ₃₂ -IN.	SOL	.0 1000	NITI	RO 100	SOLO 1250		
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	
				COWBO	Y ACTIO	ON					
		1176	WIN 209	FED 12S0	_	_	15.0	4000			
		1232	WIN 209	FED 12S0	_	_	16.0	4500			
		1295	WIN 209	FED 12S0	_	_	17.0	5100			
3/4		1361	WIN 209	FED 12S0	_	_	18.0	6100			
74	_	1160	WIN 209	WAA12SL	17.0	3400	_	_			
		1206	WIN 209	WAA12SL	18.0	3700	_	-			
		1276	WIN 209	WAA12SL	19.0	4700	_	-			
		1336	WIN 209	WAA12SL	20.0	5400	_	-			
		1143	WIN 209	FED 12S0	_	_	15.0	4900			
		1196	WIN 209	FED 12S0	_	_	16.0	5700			
		1263	WIN 209	FED 12S0	_	_	17.0	6900			
7/		1320	WIN 209	FED 12S0	_	_	18.0	7900			
7/8	_	1148	WIN 209	WAA12SL	17.0	4100	_	_			
		1203	WIN 209	WAA12SL	18.0	5000	_	_			
		1247	WIN 209	WAA12SL	19.0	5400	_	_			
		1305	WIN 209	WAA12SL	20.0	6200	-	_			
		1107	WIN 209	WAA12SL	_	_	15.0	5400			
		1174	WIN 209	WAA12SL	_	_	16.0	6700			
		1223	WIN 209	WAA12SL	_	_	17.0	7400			
_		1275	WIN 209	WAA12SL	_	_	18.0	8800			
1	_	1175	WIN 209	WAA 12	17.0	5900	_	_			
		1190	WIN 209	WAA 12	18.0	7200	_	_			
		1221	WIN 209	WAA12	19.0	7300	_	_			
		1271	WIN 209	WAA 12	20.0	8600	-	-			
		1092	WIN 209	WAA12SL	_	_	15.0	7400			
		1130	WIN 209	WAA12SL	_	-	16.0	7900			
		1184	WIN 209	WAA12SL	_	_	17.0	9500			
11/8	-	1108	WIN 209	WAA 12	17.0	7500	_	-			
		1164	WIN 209	WAA 12	18.0	9300	_	_			
		1194	WIN 209	WAA 12	19.0	9500	_	_			
		1237	WIN 209	WAA 12	20.0	10300	_	-			
	•			REGULAR T	ARGET	LOADS		•	•		
7.			CHED 209	WAA12SL	20.5	7200	18.5	7100			
7/8	-	1325	CCI 209	WAA12SL	21.0	7100	18.5	7500			

SHOTSHEL

SHC	OTSHE	ELL DA	ATA		48		S	HOTS	HELL	DATA
	2-Ga., 2 ³ / ₄ -I . Overall Le 2 ⁹ / ₃₂ -IN.			pe Shells rimp Depth: /32-IN.	SOL	O 1000	NITI	RO 100	SOL	0 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			FED209A	WAA12SL	20.5	7700	18.0	8000		
			REM209P	WAA12SL	21.0	6800	18.5	6700		
7/8	_	1325	WIN 209	WAA12SL	20.5	7900	18.0	7200		
			FIO 616	WAA12SL	20.5	8200	18.0	7700		
			CCI209M	WAA12SL	20.5	8300	18.0	7300		
			WIN 209	WAA12SL	22.5	9500	20.5	9800		
			CHED	WAA12SL	22.0	10800				
7/8	_	1445	CCI 209	WAA12SL	22.0	11600				
			FED209A	WAA12SL	21.3	10800				
			REM209P	WAA12SL	22.0	9900				
			WIN 209	WAA12SL	18.5	8500	16.5	7400		
			WIN 209	WINDJAMMER	18.5	7700	17.0	6400		
			WIN 209	CB 2100	18.5	7800	17.0	7000		
			WIN 209	FED 12S0	18.5	8200	16.5	7900		
			WIN 209	GRN DUSTER	18.5	7600	16.5	7100		
			WIN 209	CB 1100	18.5	8500	16.7	6800		
1	23/4	1200	WIN 209	REMTGT	19.0	8200	16.8	6700		
•	2/4	1200	CCI 209	WAA12SL	19.0	7700	16.8	7400		
			CCI209M	WAA12SL	18.5	8200	16.8	7600		
			CHED 209	WAA12SL	18.5	8000	16.8	7400		
			FED209A	WAA12SL	18.5	8500	16.8	7600		
			FIO 616	WAA12SL	18.5	7400	16.8	7300		
			REM209P	WAA12SL	19.0	7800	16.8	6700		
			CCI 209	HAWK II	19.0	8100	16.8	7500		
1	3	1245	CCI209M	BLUE DUSTER	19.5	8000	17.3	7900		
			WIN 209	WAA12SL	19.5	8200	17.3	8200		
			WIN 209	WAA12SL	20.0	10300	18.0	9000		
			WIN 209	TRAPPER	20.0	9000	18.5	8500		
			WIN 209	CB 1118-12	20.0	9500	18.5	9600		
			WIN 209	REM TGT 12	20.0	9000	18.0	8700		
			WIN 209	REM FIG 8	20.0	9300	18.0	8400		
1	31/4	1290	WIN 209	FED 12S0	20.0	9900	18.0	9700		
			CCI 209	WAA12	21.0	9400	18.5	10300		
			REM209P FED209A	WAA12 GRN DUSTER	20.5	9600 9800	18.5 18.5	10200		
			FIO 616 CCI209M	WAA12 WAA12	20.0	9600 9900	18.0 18.0	10600 10700		
					20.0	9900				
1	33/4	1050	WIN 209 CCI 209	WAA12SL GRN DUSTER		_	19.5 19.8	10200 9900		
1	3%4	1350	FED209A		_	_				
				FED 12S0	-	-	19.0	10400	47.0	0400
			WIN 209	WAA12	17.5	9000	15.5	8100	17.0	6400
			WIN 209	BP 18	17.5	7800	15.5	7900	17.0	5000
			WIN 209	VEDENLITE	17.0	9500	15.5	7000	17.0	5800
	Evtro		WIN 209 WIN 209	VERSALITE PC (Red)	17.0 17.5	9300 7900	15.5	7900	16.8	6500
11/8	Extra	1125	WIN 209 WIN 209	P.C. (Red) CB 2118-12	17.0	8200	15.5	7700 8300	 	
	Light		WIN 209 WIN 209	REM TGT 12		8800	15.5 15.5	8400	17.2	6800
			WIN 209 WIN 209		17.0 17.0	8400			17.2	6000
			WIN 209 WIN 209	REM FIG 8 BLUE DUSTER	17.0	7200	15.5 15.5	8300 8200	17.2	6500
			WIN 209 WIN 209	FED 12S3	16.5	10300	15.5	7300	17.2	6600
	1		11111 200	1 120 1200	1 10.0	10000	1 10.0	1 ,300	1	3300

SHC	OTSHE	ELL DA	ATA		49		S	HOTS	HELL	DATA
	2-Ga., 2 ³ / ₄ - . Overall Le 2 ⁹ / ₃₂ -IN.			pe Shells rimp Depth: //32-IN.	SOL	O 1000	NITI	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			CCI 209	WAA12	17.0	8900	15.5	8700	17.3	6300
	Extra		CCI 209	CB 2118-12	17.5	7100	15.5	7900	17.2	6000
11/8	Light	1125	REM209P	WAA12	17.5	7200	15.5	7500	17.6	6000
	Ligiti		FED209A	WAA12	16.5	9400	15.5	9000	17.2	6300
			FIO 616	WAA12	16.5	8500	15.5	9100	17.2	6200
			CCI209M	WAA12	16.5	8600	15.5	9100	17.2	6800
			WIN 209	WAA12	18.0	9700	16.0	8800	17.7	6900
			WIN 209	WAA12SL	_	-	16.0	8700	17.7	6600
			WIN 209	VERSALITE	17.5	9800	16.0	9100	17.2	7600
			WIN 209	P.C. (Red)	18.0	9300	16.0	8200	17.8	6200
			WIN 209	BP 18	18.0	7900	16.0	8300	17.2	5900
			WIN 209	CB 2118-12	17.5	8600	16.5	8400	17.2	5800
			WIN 209	HAWK II	17.5	10000	16.0	9100		
			WIN 209	REM RXP 12	17.5	8900	16.0	8900		
11/8	23/4	1145	WIN 209	REM FIG 8	17.5	8500	16.0	8600		
			WIN 209	BLUE DUSTER	17.5	8200	16.0	8700		
			WIN 209	FED 12S3	17.0	10500	16.0	8700		
			CCI 209	WAA12	18.0	10000	16.0	9700		
			CCI 209	CB 1118-12	18.0	8200	16.0	9500		
			REM209P	WAA12	18.0	9500	16.0	7800		
			FED209A	WAA12	17.0	9800	16.0	9700		
			FIO 616	WAA12	17.0	9800	16.0	9200		
			CCI209M	BLUE DUSTER	17.0	9400	16.0	9300		
			CHED 209	WAA12	17.0	9000	16.5	10400		
			WIN 209	WAA12	19.0	10800	17.0	9700	21.5	9800
			WIN 209	WAA12SL	- 40.5	40000	17.0	9900	04.5	0500
			WIN 209	VERSALITE	18.5	10300	17.0	11200	21.5	9500
			WIN 209 WIN 209	P.C. (Red) BP 18	19.0	9700	17.5	10000	21.5	9000
			WIN 209 WIN 209	TRAPPER	19.0 19.0	9700	17.0 17.0	9500 10400	22.0	9500 8900
			WIN 209 WIN 209	REM RXP 12	18.5	10700	17.0	10000	22.0	9000
			WIN 209	REM FIG 8	18.5	9800	17.5	9600	22.5	9000
11/8	3	1200	WIN 209	BLUE DUSTER	18.5	10700	17.0	11100	22.0	10300
			CCI 209	WAA12	18.5	10500	17.0	10000	23.5	8800
			CCI 209	CB 1118-12	19.0	8800	17.0	9600	23.5	8800
			REM209P	WAA12	18.5	11500	17.0	10100	23.5	9100
			FED209A	WAA12	19.0	11200	16.5	10900	22.0	9800
			FIO 616	BLUE DUSTER	19.0	9400	17.0	10700	22.5	9500
			CCI209M	WAA12	19.0	9500	17.0	10800	22.5	9900
			CHED 209	WAA12	19.5	9900	17.0	10700		
			WIN 209	WAA12	_	_	_	_	22.5	10800
			WIN 209	VERSALITE	_	_	_	_	23.0	10800
			WIN 209	P.C. (Red)	20.0	11000	18.5	11100	23.0	10100
			WIN 209	BP 18	_	-	18.0	10800	23.0	10800
11/8	31/4	1255	WIN 209	CB 1118-12	20.0	11500	_	_	22.5	10200
			WIN 209	REM RXP 12		_	19.0	10500	23.0	10400
			WIN 209	REM TGT 12	l _	_	18.0	11500	22.5	10200
			CCI 209	CB 1118-12	20.5	10300	-	_	24.0	9500
			WIN 209	WAA12					24.0	11000
11/8	31/2	1310	WIN 209	REM FIG 8					25.0	10200
	1	l .		1	1	l	I	I		1

SHC	TSHE	ELL DA	NTA		50		S	HOTS	HELL	DATA
	2-Ga., 2 ³ / ₄ -l Overall Le 2 ⁹ / ₃₂ -IN.			pe Shells rimp Depth: /32-IN.	SOL	O 1000	NITI	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
11/8	31/2	1310	WIN 209	P.C. (Red)					25.0	10300
178	37/2	1310	WIN 209	CB1118-12					25.0	10300
			WIN 209	WAA12R					23.5	10700
11/4	31/4	1220	WIN 209	REM SP12					23.0	10300
			FED209A	WAA12R					23.5	10700
11/4	31/2	1275	WIN 209	WAA12R					24.0	11100

	2-Ga., 2 ³ / ₄ -I Overall Le 2 ⁹ / ₃₂ -IN.			Super Sport Crimp Depth: ³ ⁄ ₃₂ -IN.	SOL	O 1000	NITI	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			WIN 209	WAA12SL	21.5	5800	18.5	7200		
			FED209A	CB2100	21.0	6300	18.0	8000		
7/8	_	1325	CCI 209	FED 12S0	21.5	5900	17.8	7300		
			FIO 616	GRN DUSTER	21.0	6100	17.5	8100		
			CHED 209	WAA12SL	20.5	6900	17.8	7700		
			WIN209A	WAA12SL	18.7	6000	16.5	7200		
			FED209A	CB2100	18.5	6000	16.2	8100		
1	23/4	1200	CCI 209	FED 12S0	19.0	6000	16.8	6900		
			FIO 616	GRN DUSTER	18.7	7000	16.2	7600		
			CHED 209	WAA12SL	19.0	6100	16.3	7400		
			WIN 209	WAA12SL	20.5	8600	18.3	9100		
			FED209A	VERSALITE	20.0	9200	17.5	10600		
1	31/4	1290	CCI 209	TRAPPER	21.0	9000	18.5	8600		
			FIO 616	GRNDUSTER	20.3	9700	17.8	10500		
			CHED 209	FED 12SL	20.3	9200	18.0	9500		
			WIN 209	WAA12	18.3	8000	16.2	8800		
			FED209A	CB1118-12	18.3	7500	16.0	9700		
11/8	23/4	1145	CCI 209	HAWK II	18.5	7600	16.2	9700		
			FIO 616	BLUE DUSTER	18.0	8200	16.0	9200		
			CHED 209	TRAPPER	18.0	8900	16.5	10400		
			WIN 209	WAA12	19.5	10500	17.0	9700		
			FED209A	CB1118-12	19.0	10300	16.8	9600		
11/8	3	1200	CCI 209	HAWK II	19.2	10000	17.3	9500		
			FIO 616	BLUE DUSTER	19.0	10000	17.0	10000		
			CHED 209	TRAPPER	19.2	10400	17.0	10000		

		or Gun Club		Target Shells Crimp Depth: 2/32-IN.	SOL	O 1000	NITE	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
				COWBO	Y ACTIO	ON				
3/4		1281	REM209P	FED 12SO +	_	_	17.0	5500		
9/4	_	1344	STS	ONE .135" CARD	_	_	18.0	6400		
		1270			-	_	17.0	7100		
		1322	REM	FED	_	_	18.0	8000		
7/8	_	1367	209P	1280	_	_	19.0	8500		
		1419	STS	1200	_	_	20.0	9800		
		1169	Ī		17.0	5600	_	_		

Unices Equiv Velocity, Frimer wad Grains Pressure Grains Pressure With P	ATA	IELL [HOTSH	S		51		ATA	ELL DA	TSHE	SHC
Min. Overall Langth: 275-11 N. Substitution							arget Shells				12
Value Capular Capula	1250	SOLO	RO 100	NITE	O 1000	SOL		Max.		Overall Le	Min
Table	Approx. Pressure PSI		Pressure		Pressure				Velocity,	Equiv-	
1			_	1 1							7/8
1			_	_	7600	20.0	12SO	STS	1314		
1			5600	15.0	_	_			1092		
Test			6600	16.0	_	_			1150		
1 1/6			7500	17.0	_	_		REM	1207		
1100			8500	18.0	_	_	FED		1263	_	1
1153 1220 19.0 7200			_	-			1280				ı '
1270			_	_				0.0			
11/8											
11/2											
11/6											
Total Tota											
1/8							DEM	REM			
1051								209P		_	11/8
1110			_				101	STS			
Table Tabl			_								
CHED 209 WIN % GREY 21.0 6700 18.0 8100			_	_							
CHED 209 WIN % GREY 21.0 6700 18.0 8100							DECIII AD T				
CCI 209		-									
FED209A REM TGT 20.5 7600 18.0 9000 FED209A REM TGT 21.5 6400 18.0 8100 FED209A REM TGT 21.0 7500 18.0 7600 FED209A REM TGT 21.0 7500 18.0 8100 FED209A REM TGT 21.0 7500 18.0 8100 FED209A REM TGT 21.0 7000 18.0 8000 FED209A REM TGT 22.0 6800 18.0 8100 FED209A REM TGT 22.0 7000 18.0 8000 FED209A REM TGT 22.0 7000 18.0 8000 FED209A REM TGT 22.0 8100 21.0 8100 FED209A REM TGT 22.0 6600 16.5 7600 FED209A REM TGT 22.0 8100 19.5 6500 16.0 7500 FED209A REM TGT 12 19.5 7000 16.0 8000 FED209A REM TGT 12 20.0 6200 16.5 7800 FED209A REM TGT 12 19.5 7200 16.0 7500 FED209A REM TGT 12 19.5 7200 16.0 7500 FED209A REM TGT 12 19.5 7200 16.0 7500 FED209A REM TGT 12 19.5 7200 16.0 8400 FED209A REM TGT 12 18.5 7400 16.0 8300 FED209A REM TGT 12 18.5 7500 18.0 9300 FED209A REM TGT 12 22.0 7500 18.0 9300 FED209A REM TGT 12 22.0 7500 18.0 10100 FED209A REM TGT 12 75.0 7500 FED209A REM TGT 12 75.0 7500											
Tell											
WIN 209 REM TGT 21.0 7500 18.0 7600									1225		7/6
FIO 616 GREEN DUSTER 21.0 6800 18.0 8100 CCI209M REM TGT 21.0 7000 18.0 8000 REM TGT 21.0 7000 18.0 8000 REM TGT 23.5 8100 21.0 8100 REM TGT 28.0 8100 REM TGT 12 19.5 7000 16.5 7400 REM TGT 12 19.5 7000 16.5 7400 REM TGT 12 19.5 86500 16.0 7500 REM TGT 12 19.5 86500 16.0 8000 REM TGT 12 19.5 86500 16.0 8000 REM TGT 12 20.0 8100 16.5 7800 REM TGT 12 20.0 8100 16.5 7800 REM TGT 12 20.0 8100 16.5 7800 REM TGT 12 19.5 7000 16.0 7500 REM TGT 12 19.5 7000 16.0 7500 REM TGT 12 19.5 7000 16.0 7500 REM TGT 12 19.5 7000 16.0 8000 REM TGT 12 19.5 7000 16.0 8000 REM TGT 12 18.5 7400 REM TGT 12 18.5 7400 REM TGT 12 18.5 7400 REM TGT 12 18.5									1323	_	78
CCI209M REM TGT 21.0 7000 18.0 8000											
% — 1435 REM209P REM TGT 23.5 8100 21.0 8100 REM209P REM209P REM FIG 8 20.0 6600 16.5 7600 REM209P REM TGT 12 19.5 7000 16.5 7400 REM209P REM209P REM TGT 12 19.5 6500 16.0 7500 REM209P REM209P REM TGT 12 18.5 8100 16.0 8000 REM209P REM209P REM FIG 8 19.0 6700 16.0 8000 REM FIG 8 19.5 6300 16.5 7800 16.0 WIN 209 REM FIG 8 19.5 6300 16.5 7800 WIN 209 REM FIG 8 19.0 7100 16.0 7500 WIN 209 REM FIG 8 18.5 7500 16.0 8400 FED209A REM FIG 8 18.5 7400 16.0 8300 REM209P REM FIG 8 21.5 7300 18.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
REM209P REM FIG 8 20.0 6600 16.5 7600 REM209P REM TGT 12 19.5 7000 16.5 7400 REM209P REM									1435	_	7/8
REM209P REM2											
REM209P REM209P TRAPPER 19.0 6700 16.0 8800			7400	16.5	7000	19.5	REM TGT 12	REM209P			
REM209P			7500	16.0	6500	19.5	CB 1100	REM209P			
1 294 1200 CCI 209 REM FIG 8 19.5 6300 16.5 7800 CCI 209 REM TGT 12 20.0 6200 16.5 7900 WIN 209 REM FIG 8 19.0 7100 16.0 7500 WIN 209 REM TGT 12 19.5 7200 16.0 7700 FED209A REM FIG 8 18.5 7500 16.0 8400 FED209A REM TGT 12 18.5 7400 16.0 8300 REM TGT 12 18.5 7400 16.0 8300 REM TGT 12 18.5 7500 18.0 9300 REM TGT 12 22.0 7500 18.0 10100 REM209P REM209P REM TGT 12 22.0 7500 18.0 10100 REM209P REM209P CCB 1100 21.5 7700 18.0 10100			8000	16.0	8100	18.5	GREEN DUSTER	REM209P			
CCI 209 REM TGT 12 20.0 6200 16.5 7900 WIN 209 REM FIG 8 19.0 7100 16.0 7500 WIN 209 REM FIG 8 19.5 7200 16.0 7700 FED209A REM FIG 8 18.5 7500 16.0 8400 FED209A REM TGT 12 18.5 7400 16.0 8300 REM 209P REM FIG 8 21.5 7300 18.0 9300 REM 209P REM 209P REM TGT 12 22.0 7500 18.0 10100 REM 209P REM 209P CB 1100 21.5 7700 18.0 10100			8800	16.0	6700	19.0	TRAPPER	REM209P			
WIN 209 REM FIG 8 19.0 7100 16.0 7500 WIN 209 REM TGT 12 19.5 7200 16.0 7700 FED209A REM FIG 8 18.5 7500 16.0 8400 FED209A REM TGT 12 18.5 7400 16.0 8300 REM209P REM FIG 8 21.5 7300 18.0 9300 REM209P REM TGT 12 22.0 7500 18.0 10100 REM209P REM209P CB 1100 21.5 7700 18.0 10100			7800	16.5	6300	19.5	REM FIG 8	CCI 209	1200	23/4	1
WIN 209 REM TGT 12 19.5 7200 16.0 7700			7900	16.5	6200	20.0	REM TGT 12	CCI 209			
FED209A REM FIG 8 18.5 7500 16.0 8400 FED209A REM TGT 12 18.5 7400 16.0 8300 REM209P REM TGT 8 21.5 7300 18.0 9300 REM209P REM TGT 12 22.0 7500 18.0 10100 REM209P CB 1100 21.5 7700 18.0 10100											
FED209A REM TGT 12 18.5 7400 16.0 8300											
REM209P REM FIG 8 21.5 7300 18.0 9300 REM209P REM TGT 12 22.0 7500 18.0 10100 REM209P CB 1100 21.5 7700 18.0 10100											
REM209P REM TGT 12 22.0 7500 18.0 10100 REM209P CB 1100 21.5 7700 18.0 10100											
REM209P CB 1100 21.5 7700 18.0 10100											
ן אבווועטשר ארבבוז טטטובה בו.ט שוטט ווועט 9900											
REM209P TRAPPER 21.0 7900 17.5 10200											
CCI 209 REM FIG 8 22.0 7700 18.0 8700											
1 3½ 1290 CCI 209 REM TGT 12 22.0 7800 18.0 10200									1290	31/4	1
WIN 209 REM FIG 8 21.0 8600 18.0 9200										-/-	·
WIN 209 REM TGT 12 21.5 8700 18.0 9900	-										
FED209A REM FIG 8 20.5 9000 18.0 10200											
FED209A REM TGT 12 20.5 8900 18.0 10900											
CCI209M REM FIG 8 21.0 9100 18.0 10000											
CCI209M REM TGT 12 21.0 8200 18.0 10400								CCI209M			
Extra REM209P REM FIG 8 18.0 8300 16.0 6500			6500	16.0	8300	18.0	REM FIG 8		1105	Extra	414
1½ Light 1125 REM209P REM RXP 12 18.0 8200 16.0 7200			7200	16.0	8200	18.0	REM RXP 12	REM209P	1125	Light	178

SHC) I SHE	ELL DA	ATA		52		S	HOTSH	1ELL	DATA
12	2-Ga., 2 ³ / ₄ -II		STS® Plastic T	arget Shells						
Min.	Overall Le			Crimp Depth: 2/32-IN.	SOL	O 1000	NIT	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			WIN 209	BLUE DUSTER	18.5	8500	16.0	7400		
11/8	Extra	1125	FED209A	REM RXP 12	18.0	8900	15.5	7900		
	Light		CCI209M	REM RXP 12	17.5	9600	16.0	6900		
			REM209P	REM FIG 8	18.5	8400	16.5	7900	18.0	7600
			REM209P	REM TGT 12	18.5	7200	16.5	8500	18.0	6800
			REM209P	REM RXP 12	18.5	8800	16.5	9300		
			REM209P	VERSALITE	19.0	7700	16.0	8100	18.0	7000
			REM209P	P.C. (Red)	18.5	8300	16.5	7200		
			REM209P	BLUE DUSTER	19.0	7600	16.5	7600		
			REM209P	CB 1118	19.0	7600	16.5	7900		
			REM209P	WAA12	19.0	9200	16.5	8600		
			CCI 209	REM FIG 8	19.0	8300	17.0	7900	18.0	6800
11/8	23/4	1145	CCI 209	REM TGT 12	19.0	7300	17.0	8000	18.0	7300
			CCI 209	REM RXP 12	19.0	7600	17.0	7700	18.0	7300
			WIN 209	REM FIG 8	18.5	8200	16.5	7900	18.0	6900
			WIN 209	REM TGT 12	18.5	8200	16.5	7800	18.0	7300
			WIN 209	REM RXP 12	18.5	8100	16.5	8300	18.0	7100
			FED209A	BLUE DUSTER	18.5	8500	16.0	8400	18.0	7400
			FED209A	REM TGT 12 REM RXP 12	18.5	8700	16.0	8400	18.0	7000
			FED209A		18.5	9200	16.0	9000	18.0	7300
			FIO 616 CCI209M	REM FIG 8	18.5	7700	16.5	6900	18.0	6700
			REM209P	REM FIG 8 BLUE DUSTER	18.5 20.0	7000 8700	16.5 17.5	7800 8900	18.0 19.5	8000 7700
			REM209P				17.5	8700		8100
			REM209P	REM TGT 12 REM RXP 12	20.0	9000	17.5	9400	19.5 20.0	8400
			REM209P	VERSALITE	20.0	9000	17.5	9200	19.2	8100
			REM209P	P.C. (Red)	20.0	9100	17.5	8700	19.7	7600
			REM209P	WINDJAMMER	20.5	8100	17.5	7700	19.7	7700
			REM209P	CB 1118	20.0	8200	17.5	9000	19.5	8400
			REM209P	WAA12	20.0	8800	17.0	10200	19.5	8500
11/8	3	1200	CCI 209	BLUE DUSTER	20.0	8200	18.0	10000	19.3	8400
			CCI 209	REM TGT 12	20.0	8100	18.0	9600	19.3	8400
			CCI 209	REM RXP 12	20.0	8000	17.5	9700	19.5	8100
			WIN 209	REM FIG 8	20.0	9900	17.5	9400	19.2	8600
			WIN 209	REM TGT 12	20.0	9500	17.5	9900	19.0	8400
			WIN 209	REM RXP 12	19.5	9800	17.5	9700	19.5	8600
			FED209A	REM FIG 8	19.5	10000	17.5	9800	19.3	8400
			FED209A	REM TGT 12	19.5	10000	17.0	9600	19.3	8400
			FED209A	REM RXP 12	19.5	10500	17.0	10000	19.5	8100
			FIO 616	BLUE DUSTER	20.0	9400	17.5	9400	19.2	8600
			CCI209M	REM FIG 8	20.0	8400	17.5	8900	19.2	8800
			FED209A	REM RXP 12					24.0	8900
11/8	31/4	1255	FED209A	P.C. (Red)					24.0	8900
			FED209A	WINDJAMMER					24.0	10200
			REM209P	REM FIG 8					27.5	7700
			REM209P	REM RXP 12					26.5	8900
11/8	31/2	1310	REM209P	WAA12F114					25.0	8500
1/8	372	1310	REM209P	CB 1118					26.0	8500
			CCI 209	WAA12F114					26.5	8900
			WIN 209	WAA12F114					24.5	10400
			FED209A	WAA12F114					23.5	10300
1 ¹ / ₄	31/4	1220	FIO 616	WAA12F114					22.5	9700

SHC	TSHE	LL DA	TA		53		S	HOTSH	IELL I	DATA
		or Gun Člub		arget Shells Crimp Depth: 2/32-IN.	SOL	O 1000	NITE	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			CCI209SC	WAA12F114					22.5	9400
11/4	31/4	1220	FED209A	WAA12F114					22.5	9800
174	374	1220	CCI 209	WAA12F114					22.5	9400
			WIN 209	WAA12F114					22.0	10400

	3a., 2 ³ /4-IN Overall Le 2 ¹⁰ /32-IN.			C Target Shells Crimp Depth: ² / ₃₂ -IN.	SOL	O 1000	NITI	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
				COWBOY	ACTIO	N				
		1150	FED209A	FED12S0 + 1-135	_	_	15.0	4200		
		1180	FED209A	FED12S0 + 1-135	_	_	16.0	4300		
		1250	FED209A	FED12S0 + 1-135	_	_	17.0	5100		
٥.		1296	FED209A	FED12S0 + 1-135	_	_	18.0	5500		
3/4	_	1146	FED209A	FED12S0 + 1-135	17.0	3900	_	_		
		1217	FED209A	FED12S0 + 1-135	18.0	4700	_	_		
		1262	FED209A	FED12S0 + 1-135	19.0	5100	_	_		
		1327	FED209A	FED12S0 + 1-135	20.0	6200	_	_		
		1079	FED209A	FED12S0 + 1-135	_	-	15.0	4400		
		1137	FED209A	FED12S0 + 1-135	_	-	16.0	4900		
		1212	FED209A	FED12S0 + 1-135	_	_	17.0	6000		
7,		1269	FED209A	FED12S0 + 1-135	_	_	18.0	6700		
7/8	_	1106	FED209A	FED12S0 + 1-135	17.0	4700	_	-		
		1169	FED209A	FED12S0 + 1-135	18.0	5500	-	_		
		1213	FED209A	FED12S0 + 1-135	19.0	6000	_	_		
		1275	FED209A	FED12S0 + 1-135	20.0	6900	_	_		
		1087	FED209A	FED 12S0	_	_	15.0	5500		
		1125	FED209A	FED 12S0	_	_	16.0	5900		
		1193	FED209A	FED 12S0	_	-	17.0	6900		
		1257	FED209A	FED 12S0	_	_	18.0	7900		
1	_	1108	FED209A	FED 12S0	17.0	5700	_	_		
		1167	FED209A	FED 12S0	18.0	6800	_	_		
		1209	FED209A	FED 12S0	19.0	7500	_	_		
		1244	FED209A	FED 12S0	20.0	7900	_	_		
		1062	FED209A	FED 12S0	_	-	15.0	6600		
		1113	FED209A	FED 12S0	_	_	16.0	7400		
		1172	FED209A	FED 12S0	-	_	17.0	8700		
414		1216	FED209A	FED 12S0	_	_	18.0	9500		
11/8	_	1108	FED209A	FED 12S3	17.0	7800	_	-		
		1130	FED209A	FED 12S3	18.0	7900	_	_		
		1182	FED209A	FED 12S3	19.0	8700	_	-		
		1223	FED209A	FED 12S3	20.0	9600	_	_		
	•	•		REGULAR TA	RGET L	OADS	•			•
			CCI 209	FED 12S0	22.5	5900	19.5	6000		
			FED209A	FED 12S0	21.5	7100	18.5	7600		
7/8	_	1325	CCI209SC	FED 12S0	20.5	7600	19.5	7000		
			WIN 209	FED 12S0	21.5	7200	19.0	7000		
			FIO 616	FED 12S0	21.5	7200	19.0	7300		

SHC	ЛЭПЕ	ELL DA	NIA	5	4		5	HOTSH		JAIA
	Ga., 2 ³ / ₄ -IN. Overall Ler 2 ¹⁰ / ₃₂ -IN.			c Target Shells Crimp Depth: ² / ₃₂ -IN.	SOL	O 1000	NIT	RO 100	SOL	O 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
7/8	_	1325	CCI209M	FED 12S0	21.0	7300	19.0	7100		
			FED209A	FED 12S3	19.5	7500	17.0	7300		
			FED209A	FED 12S0	19.5	7000	17.5	7400		
			FED209A	BP ITD	19.5	7000	17.5	7100		
			FED209A	REM TGT 12	19.0	6900	17.0	6800		
			FED209A	WINDJAMMER	19.5	6900	17.5	7200		
			FED209A	WAA12SL	19.0	7300	17.0	7000		
1	23/4	1200	FED209A	GREEN DUSTER	19.5	7000				
			FED209A	ACT T-28	20.5	7500				
			CCI 209	FED 12S0	20.5	6900	18.5	6500		
			WIN 209	FED 12S0	20.0	7600	17.5	7400		
			REM209P	FED 12S0	20.0	6700	18.5	6700		
			FIO 616	FED 12S0	20.0	8200	17.0	7200		
			CCI209M	FED 12S0	19.5	8300	17.0	7100		
			FED209A	FED 12S3	21.5	9200	19.0	9100		
			FED209A	FED 12S0	21.5	9500	18.5	9000		
			FED209A	BP ITD	21.5	8500	19.0	8100		
			FED209A	REM TGT 12	21.5	8700	18.5	8700		
			FED209A	REM FIG 8	21.5	8500	19.0	8100		
			FED209A	WAA12SL	21.5	9500	19.0	9000		
1	31/4	1290	FED209A	GREEN DUSTER	22.0	8800				
			FED209A	ACT T-28	22.5	8100				
			CCI 209	FED 12S0	22.5	8500	20.0	8900		
			WIN 209	FED 12S0	22.0	9200	19.0	9100		
			REM209P	FED 12S0	22.5	8200	20.0	8900		
			FIO 616	FED 12S0	22.5	9500	19.0	9300		
			CCI209M	FED 12S0	22.0	9100	19.0	9200		
			FED209A	FED 12S3	18.5	7100	16.0	7800		
			FED209A	VERSALITE	18.5	7600				
			FED209A	P.C. (Red)	18.5	7400				
			FED209A	WINDJAMMER	19.0	6500	16.3	7300		
			FED209A	CB 1118	17.5	7400	16.0	7200		
			FED209A	REM FIG 8	17.5	7100	16.5	7100		
11/8	Extra	1125	FED209A	UNIWAD	17.5	7100				
178	Light	1123	FED209A	BLUE DUSTER	17.5	7200				
			FED209A	ACT TG-30	19.0	8200				
			CCI 209	FED 12S3	19.0	7300	16.5	6900		
			WIN 209	FED 12S3	19.0	7900	16.0	6600		
			REM209P	FED 12S3	19.0	7400	16.5	6200		
			FIO 616	FED 12S3	18.5	7500	16.5	6600		
			CCI209M	FED 12S3	18.5	8100	16.5	6700		
			FED209A	FED 12S3	19.0	8000	16.5	8300		
			FED209A	FED 12S0	18.5	8100	16.5	8600		
			FED209A	VERSALITE	19.0	8300	16.0	8000		
			FED209A	P.C. (Red)	19.5	8400	16.5	7000		
414	03/	41.45	FED209A	WINDJAMMER	19.5	7300	16.5	7600		
11/8	23/4	1145	FED209A	CB2118	19.0	7700	16.5	7600		
			FED209A	REM FIG 8	19.0	7700	17.0	7700		
			FED209A	BP ITD	18.5	7400	16.5	7800		
			FED209A	BLUE DUSTER	19.0	8400	16.0	7200		
			FED209A	ACT TG-30	19.5	8500	16.5	8700		

SHC	TSHE	ELL DA	ATA	ţ	55		S	HOTSH	ELL	DATA
	3a., 2 ³ / ₄ -IN. Overall Le 2 ¹⁰ / ₃₂ -IN.		d Medal Plastic Max.	Target Shells Crimp Depth: ² / ₃₂ -IN.	SOL	O 1000	NITI	RO 100	SOL	.0 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			CCI 209	FED 12S3	19.5	7600	17.5	7000		
			WIN 209	FED 12S3	19.5	8000	17.5	7200		
11/8	23/4	1145	REM209P	FED 12S3	19.5	8000	17.5	7100		
			FIO 616	FED 12S3	19.0	7800	17.5	7200		
			CCI209M	FED 12S3	19.0	8300	17.5	7400		
			FED209A	FED 12S3	20.0	9700	17.5	8800	22.7	7200
			FED209A	FED 12S0	19.5	9200	17.5	9500	22.5	7600
			FED209A	VERSALITE	19.5	9300	17.0	8700	22.5	7500
			FED209A	P.C. (Red)	20.0	8400	18.0	8300	23.0	6800
			FED209A	WINDJAMMER	21.0	7900	18.0	8500	22.5	7100
			FED209A	CB2118	19.5	9300	17.5	8800	22.5	7000
			FED209A	REM FIG 8	19.5	9000	17.5	8100	23.0	6700
11/8	3	1200	FED209A	BP ITD	20.0	8800	17.5	8700	22.5	7000
			FED209A	BLUE DUSTER	19.5	10000	18.0	8500	22.5	7500
			FED209A	ACT TG-30	20.5	9600	17.5	9200	22.5	7600
			CCI 209	FED 12S3	20.5	8700	18.5	8000	23.0	6400
			WIN 209	FED 12S3	20.5	8700	18.5	8500	23.0	7100
			REM209P	FED 12S3	20.5	8600	18.5	8300		
			FIO 616	FED 12S3	20.5	8700	18.5	8500	23.0	7300
			CCI209M	FED 12S3	20.0	9400	18.5	8700	22.5	7100
			FED209A	FED 12S3	21.0	10200	18.5	10500	23.5	8000
			FED209A	VERSALITE	20.5	10200	18.5	10200	23.5	8000
			FED209A	P.C. (Red)	21.0	9600	19.0	9400	24.0	7500
			FED209A	WINDJAMMER	22.5	8700	18.5	9100	23.5	7700
			FED209A	CB2118	20.5	10700	18.5	10100	23.5	7900
			FED209A	REM FIG 8	20.5	10300	19.0	9600	23.5	7200
			FED209A	BP ITD	21.0	9700	19.0	10200	24.0	7700
11/8	31/4	1255	FED209A	BLUE DUSTER	20.5	10600	18.5	9700	23.5	7800
			FED209A	ACT TG-30	22.0	10700	18.5	10600	23.5	7700
			CCI 209	FED 12S3	22.0	10200	19.5	9700		
			WIN 209	FED 12S3	22.0	9700	19.5	10200	23.5	8000
			REM209P	FED 12S3	22.0	9600	19.0	10000		
			FIO 616	FED 12S3	22.0	9500	19.5	10200	23.5	7600
			CCI209M	FED 12S3	21.5	10700	19.5	10900	23.5	7500
			FED209A	FED 12S4					23.0	9700
41/	01/	4000	CCI 209	FED 12S4					24.5	8200
11/4	31/4	1220	WIN 209	FED 12S4					24.0	8800
			CCI209M	FED 12S4					23.5	9500
11/4	31/2	1275	FED209A	FED 12S4					25.0	10500

	1., 2 ³ /4-IN. F Overall Lei 2 ¹⁰ / ₃₂ -IN.			Target Shells rimp Depth: ½32-IN.	SOL	0 1000	NITE	RO 100	SOL	0 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			CCI 209	FED 12S0	23.0	5800	20.5	6300		
			FED209A	FED 12S0	22.5	6700	19.5	6800		
7/8		1325	REM209P	FED 12S0	23.0	6900	20.5	6600		
78	_	1323	WIN 209	FED 12S0	21.5	7200	19.5	6400		
			FIO 616	FED 12S0	21.5	7400	20.0	6400		
			CCI209M	FED 12S0	21.5	7200	20.0	6400		

SHC	TSHE	ELL DA	TA		56		S	HOTS	IELL	DATA
	Ga., 2 ³ / ₄ -IN. Overall Le 2 ¹⁰ / ₃₂ -IN.			arget Shells Crimp Depth: 2/32-IN.	SOL	O 1000	NITI	RO 100	SOLO 1250	
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			FED209A	FED 12S3	19.5	6600	17.5	6600		
			FED209A	WAA12	19.5	5500	17.5	6800		
1	23/4	1200	WIN 209	FED 12S3	19.5	6500	17.5	6400		
			FIO 616	FED 12S3	19.5	6800	17.5	6800		
			CCI209M	FED 12S3	19.5	6700	17.5	6500		
			FED209A	FED 12S3	21.5	9000	19.5	8600		
			FED209A	WAA12	21.0	7500	19.0	8400		
1	31/4	1290	WIN 209	FED 12S3	21.5	8300	19.0	8600		
			FIO 616	FED 12S3	21.5	8600	19.0	8100		
			CCI209M	FED 12S3	21.5	9000	19.0	7900		
			FED209A	FED 12S4	18.5	8500	16.5	8200		
			FED209A	WAA12	18.5	7900	16.5	7800		
11/8	23/4	1145	FED209A	BP TRAP C	19.0	8200	17.0	7800		
			FED209A	HAWK II	18.5	8200	17.0	7600		
			WIN 209	FED 12C1	19.5	7900	17.0	6700		
			FED209A	FED 12S4	19.5	9800	17.5	9700		
41/		4000	FED209A	WAA12	20.0	9500	18.0	9000		
11/8	3	1200	FED209A	BP TRAP C	20.0	9100	18.0	8900		
			FED209A	HAWK II	19.5	8800	18.0	8900		
			FED209A	FED 12S4	21.0	10800	19.0	11300		
41/	01/	4055	FED209A	WAA12	21.0	10500	19.0	10000	23.5	7500
11/8	31/4	1255	FED209A	BP TRAP	21.0	10900	19.0	9900	24.5	7800
			FED209A	HAWK II	20.5	9600	19.0	9500	25.0	7500
			FED209A	WAA12F114					26.0	9200
11/8	31/2	1310	FED209A	VERSALITE					25.0	8500
			FED209A	HAWK II					26.0	8100
			FED209A	FED 12S4					24.0	8000
			FED209A	WAA12F114					24.0	9300
			FED209A	REM RP12					24.0	8500
11/4	31/4	1220	CCI 209	FED 12S4					24.5	8300
			WIN 209	FED 12S4					24.0	9400
			FIO 616	FED 12S4					24.0	9200
			CCI209M	FED 12S4					24.0	9300
11/4	31/2	1275	FED209A	FED 12S4					25.0	9700

Min.	12-Ga Overall Ler 29/32-IN.			lls rimp Depth: /32-IN.	SOL	0 1000	NITE	RO 100	SOL	0 1250
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
			CCI209SC	BP 078	20.5	7600	18.5	7700		
			FED209A	BP 078	20.0	8100	18.0	8500		
7/8 —	1325	WIN 209	BP 078	20.5	8000	18.0	7700			
			FIO 616	BP 078	20.5	7700	18.5	8100		
			CCI209M	BP 078	21.0	7400	18.5	8000		
			FIO 616	FED 12S0	19.5	7800	17.0	8100		
			WIN 209	FED 12S0	20.0	6500	17.0	7200		
1	23/4	1200	REM209P	FED 12S0	20.5	6900	17.0	7100		
			FED209A	FED 12S0	19.0	8000	17.0	8500		
			CCI209M	FED 12S0	19.5	7600	17.0	7400		
	4 01/	31/4 1290	FIO 616	FED 12S3	21.0	10500	18.5	9900		
1	31/4		WIN 209	FED 12S3	20.5	11400	18.5	8800		

SHO	TSHE	LL DA	TA	:	57		S	HOTSH	IELL I	DATA		
Min.	12-Ga Overall Ler 29/32-IN.			lls rimp Depth:	SOL	O 1000	NITI	RO 100	SOL	O 1250		
Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI		
	aleni	11./060.	DEMOND	FED 4000	20.0		40.5			101		
1	31/4	1290	REM209P FED209A	FED 12S3 FED 12S3	22.0 20.5	9700 10700	18.5 18.5	8800 10300				
1	374	1290	CCI209M	FED 1283	21.0	9900	18.5	8900				
			FIO 616	FED 12S3	18.5	7300	15.5	8000				
			FIO 616	Super Hawk	18.0	7400	15.5	8000				
			WIN 209	FED 12S3	18.0	7500	15.5	7300				
			WIN 209	Super Hawk	17.5	7800	15.5	7300				
	Extra		REM209P	FED 12S3	19.0	6100	16.0	7800				
11/8	Light	1125	REM209P	Super Hawk	18.0	7200	16.0	7600				
			FED209A	FIOTL1	18.0	8200	15.5	8800				
			FED209A	Super Hawk	18.0	8300	15.5	8400				
			CCI209M	FIOTL1	19.0	7000	15.5	8000				
			CCI209M	Super Hawk	19.0	7900	16.0	7500				
			FIO 616	FIOTL1	19.0	8200	16.5	8100				
			FIO 616	Super Hawk	18.5	7900	16.0	8100				
			WIN 209	FIOTL1	18.5	7900	16.5	8300				
		4 1145	WIN 209	Super Hawk	18.5	8400	16.0	7900				
417	03/		REM209P	FIOTL1	19.5	7300	16.5	8000				
11/8	23/4	1145	REM209P	Super Hawk	18.5	7600	16.5	7900				
			FED209A	FIOTL1	19.0	8400	16.5	9300				
		FED209A	Super Hawk	19.0	8600	16.0	9100					
		CCI209M	FIOTL1	19.0	7800	16.5	9100					
			CCI209M	Super Hawk	18.5	8200	16.5	8000				
			FIO 616	FIOTL1	20.0	9200	17.5	9100	22.0	7400		
			FIO 616	WAA12	19.5	9000	17.5	9000	22.0	7300		
					WIN 209	FIOTL1	20.5	7900	17.5	8900	22.0	7600
			WIN 209	WAA12	19.5	9900	17.5	9900	22.0	7400		
11/8	3	1200	REM209P	FIOTL1	20.5	8000	17.5	9100				
			REM209P FED209A	REM RXP FIOTL1	20.0	8100 10900	17.5 17.5	9000	22.0	7500		
			FED209A FED209A	WAA12	19.0	9600	17.0	9900	22.0	7600		
			CCI209M	FIOTL1	20.0	8800	17.5	10300	22.5	6900		
			CCI209M	WAA12	19.5	8700	17.5	9600	22.5	7200		
			FIO 616	FED 12S3	21.5	9100	18.5	10900	23.0	8200		
			FIO 616	ACT TG-30	21.5	9000	18.5	10800	23.0	0200		
11/8	31/4	1255	WIN 209	FED 12S3	21.5	9100	18.5	10700	22.5	8400		
			FED209A	FED 12S3	21.5	9400	. 5.0		22.5	8700		
			FIO 616	FIOTL1	-				24.0	9700		
			WIN 209	WAA12F114					23.5	10000		
			WIN 209	FIOTL1					24.0	10000		
11/8	31/2	1310	FED209A	FIOTL1					23.5	9500		
			FED209A	WAA12F114					23.5	10000		
			REM209P	WAA12F114					25.0	9100		
11/4	31/4	1220	WIN 209	WAA12F114					23.0	9900		
			FIO 616	WAA12F114					24.5	10600		
			FIO 616	WAA121 114 WAA12R					24.5	9100		
1 ¹ / ₄	31/2	1275	CCI209SC	WAA12F114					25.0	10600		
174	0/2	12/3	WIN 209	FED 12C1					24.5	9600		
		 	FED209A	FED 12C1					24.5	10500		
	I	<u> </u>	<u> </u>	<u> </u>	<u> </u>			<u> </u>	<u> </u>			

SH	OTSH	ELL	DATA		58			SHOTSHELL DATA				
		i-Ga., 2 ³ / ₄ -i Overall Le 2 ¹⁰ / ₃₂ -IN.			eld Loads rimp Depth: /32-IN.	SOL	SOLO 1000		RO 100	SOLO 1250		
Shell Brand	Ounces Lead	Dram Equiv- alent	Approx. Velocity, Ft./Sec.	Primer Type	Wad Type	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	
				FED209A	AA16 + 1-135	16.0	10500	14.5	9700	18.5	8000	
				WIN 209	AA16 + 1-135	16.0	9700	15.0	9800	19.0	7400	
	1	21/2	1165	REM209P	SP16 + 1/4	17.5	8800	15.0	8700	20.0	7600	
FED				CCI 209	AA16 + 1-135	17.5	9100	15.0	8900	19.0	8500	
FIELD				FED209A	BPSP16			18.5	7300			
FIELD &				FED209A	AA16 + 1-135	17.0	11100	16.0	10900	19.0	9300	
α HI-P				WIN 209	AA16 + 1-135	17.0	11200	16.5	10200	20.0	8300	
п-г	1	23/4	1220	REM209P	SP16 + 1/4	18.0	11500	15.5	10000	22.0	8900	
				CCI 209	AA16 + 1-135	_	_	15.5	10000	20.0	8900	
				FED209A	BPSP16	_	_			20.0	8900	
	11/8	23/4	1185	FED209A	WAA16					19.5	10600	
	178	294	1100	WIN 209	WAA16					20.0	9500	
					FED209A	WAA16					17.0	9200
	1	21/2	1165	WIN 209	WAA16					17.0	9500	
	'	272	1100	REM209P	WAA16					17.5	7800	
WIN				CCI 209	WAA16					17.0	7800	
AA				FED209A	WAA16					18.5	10600	
	1	23/4	1220	WIN 209	WAA16					18.5	10700	
	'	294	1220	REM209P	WAA16					18.5	9300	
				CCI 209	WAA16					18.5	10100	
	11/8	23/4	1105	FED209A	REMSP16					18.5	10700	
	178	294	1185	WIN 209	REMSP16					19.5	9800	
				FED209A	AA16 + 1-135	15.0	10500	15.0	10700	17.5	6000	
	1 21/2	21/2	1165	WIN 209	AA16 + 1-135	15.5	10900	15.0	10100	17.5	6000	
				CCI 209	AA16 + 1-135	15.5	10300	15.5	9600	19.0	6500	
A OTIV				FED209A	AA16 + 1-135					20.0	8400	
ACTIV	1	23/4	1220	WIN 209	AA16 + 1-135					20.0	8000	
				CCI 209	AA16 + 1-135					20.0	8300	
	41,	23/		FED209A	WAA16					19.0	9600	
	11//8	23/4	1185	WIN 209	WAA16					19.0	9200	

	20-Ga	., Cowboy A	ction Loads		SOL	O 1000	NITRO 100		
Shotshell Brand	Ounces Lead	Approx. Velocity Ft./Sec.	Primer Type Wad		Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	
WIN	3/4	1037	WIN 209	WAA20	_	_	9.5	7400	
AA	74	990	WIN 209	WAA20	10.4	7100	_	_	
REM	3/4	1021	REM 209	WAA + 1-135	_	_	9.5	7400	
STS	74	1030	REM 209	WAA + 1-135	10.5	7600	_	_	
FED	3/4	1072	FED209A	WAA + 1-135	_	_	10.5	7500	
HI-P	74	1042	FED209A	WAA + 1-135	11.0	7400	_	_	

	20-Ga., 2 ³ / ₄ -IN. Shotshell Target and Field Loads										
Shotshell Brand	Ounces Lead	Dram Equiv- alent	Approx. Velocity Ft./Sec.	Primer Type	Wad Type	Grains Solo 1250	Approx. Pressure PSI				
				WIN 209	WAA20	14.0	11400				
Winchester AA	7/8	21/4	1155	WIN 209	REM RXP 20	14.5	10300				
(one-piece)				WIN 209	P.C. 20	14.5	9900				
8-point crimp				WIN 209	P.C. 20	15.5	11800				
8-point crimp	7/8	SKEET	1200	WIN 209	WAA20F1	15.0	12000				
				WIN 209	REM RXP 20	15.5	11500				

SHOTSHE	LL DATA			59	SHO	TSHELL	DATA
	20-Ga., 2 ³ /	4-IN. Shotsh	ell Target and	I Field Loads		SOL	O 1250
Shotshell Brand	Ounces Lead	Dram Equiv- alent	Approx. Velocity Ft./Sec.	Primer Type	Wad Type	Grains Solo 1250	Approx. Pressure PSI
				WIN 209	WAA20	17.5	10200
				WIN 209	WAA20F1	17.5	9000
				WIN 209	REM RXP 20	17.5	8900
	7/8	21/4	1155	WIN 209	P.C. 20	17.0	9300
Winchester	,,,	274	1100	WIN 209	WINDJAMMER	16.5	10000
Dove & Quail (polyformed				CCI 209	WAA20	16.5	8800
with plastic				REM209P	WAA20	16.5	9300
base wad)				FED209A	WAA20	16.0	9400
6-point crimp				WIN 209	WAA20	18.5	10700
	7,	OVEET	4000	WIN 209	REM RXP 20	18.5	10800
	7/8	SKEET	1200	CCI 209	WAA20	18.5	10800
				REM209P	WAA20	18.5	10400
				REM209P	REM RXP 20	16.0	10200
				REM209P	REM SP20	16.0	10000
Remington STS		21/4	1155	REM209P	WAA20	16.0	10800
(one-piece)	7/8			REM209P	WINDJAMMER	16.0	10400
8-point crimp				REM209P	REM RXP 20	17.0	11200
				WIN 209	REM RXP 20	17.0	11400
				FED209A	REM RXP 20	17.0	11400
				FED209A	FED 20S1	18.0	8900
			1155	FED209A	REM RXP 20	18.5	8700
				FED209A	P.C. 20	18.5	8800
Federal	7/8	21/4		FED209A	WINDJAMMER	18.0	9100
Hi-Power				FED209A	W-28	18.5	8400
and Target (two-piece				CCI 209	FED 20S1	18.5	8900
with plastic				WIN 209	FED 20S1	18.0	9100
base wad)				FED209A	FED 20S1	19.0	9900
6-point crimp				FED209A	REM RXP 20	19.5	10400
	7/8	SKEET	1200	FED209A	P.C. 20	19.5	10100
				CCI 209	FED 20S1	19.5	10400
				WIN 209	FED 20S1	19.0	10500
				WIN 209	W-28	17.5	8700
				WIN 209	P.C. 20	18.0	8900
	7/8	21/4	1155	WIN 209	WINDJAMMER	17.5	9200
ACTIV				CCI 209	W-28	18.0	9400
Industries				FED209A	W-28	17.5	9900
6-point crimp				WIN 209	W-28	18.5	10600
				WIN 209	P.C. 20	19.0	10400
	7/8	SKEET	1200	WIN 209	WINDJAMMER	18.5	10800
		3		CCI 209	W-28	19.0	10400
				FED209A	W-28	18.5	10300

SHOTSHE	ELL DAT	A		60	SHC	OTSHELL DATA		
	28	-Gauge Shots	shell Target Lo	oads		SOLO 1250		
Shotshell Brand	Ounces Lead	Dram Equiv- alent	Approx. Velocity Ft./Sec.	Primer Type	Wad Type	Grains Solo 1250	Approx. Pressure PSI	
					REM PT 28	13.0	10700	
DEMINISTRAL	3/4	SKEET	1155	REM 209	P.C.	12.5	11000	
REMINGTON PREMIER					BP Sporting*	12.5	9900	
FREMIER	3/4				REM PT 28	13.5	12000	
		SKEET	1200	REM 209	P.C.	13.5	11900	
					BP Sporting*	13.0	10400	
	3/4	SKEET	1155	CCI 209	BP Sporting*	13.0	11400	
FEDERAL	74	SKEET	1100	001 209	FED 28S1	13.0	12500	
	3/4	SKEET	1200	REM 209	BP Sporting*	13.5	10300	
WIN	3/4	SKEET	1155	WIN 209	REM PT 28	12.5	12200	

^{*}Note: BP Sporting Wad used with 11/16 oz. No. 9 only.

	.410-BORE, 2	1/2-IN. PLASTIC	SHELLS		4100		
Shotshell Brand	Ounces Lead	Velocity, FPS	Primer	Wad	Grains*	Approx. PSI	
FEDERAL OR			FED209A	WAA41	13.5	9400	
	1/2	1200	FED209A	REM SP410	13.5	9700	
REMINGTON			FED209A	P.C.	13.5	9600	
			FED209A	P.C.	13.5	10700	
WINCHESTER AA	1/2	1200	FED209A	REM SP410	13.5	11100	
WINCHESTER AA	/2	1200	FED209A	WAA41	13.5	11200	
			FED209A	FC410SC	13.5	12600	

*4100: 13.5 gr requires MEC #11 Bushing.

			2 ³ / ₄ " Shots ee Drive Ke	shell Slug Data y Slug		o. 2 roved	N	o. 5
Shotshell Brand	Slug Wt. Ounces	Velocity Ft./Sec.	Primer	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI
ACTIV	⁷ /8 oz.	1501	WIN 209	ACTIV TG-30 + .135 NITRO CARD	25.5	10300	_	_
ACTIV	⁷ /8 oz.	1593	WIN 209	ACTIV TG-30 + .135 NITRO CARD	_	_	40.0	10700
ACTIV	1 oz.	1553	WIN 209	ACTIV TG-30	_	_	41.5	10300
Fed G.M.	⁷ /8 oz.	1509	WIN 209	ACTIV TG-30 + .070 NITRO CARD	25.5	9700	_	_
Fed G.M.	⁷ /8 oz.	1638	WIN 209	ACTIV TG-30 + .135 NITRO CARD	_	_	42.0	10200
Fed G.M.	1 oz.	1529	WIN 209	FED 12S3	_	_	41.5	9100
Rem STS	⁷ /8 oz.	1466	WIN 209	ACTIV TG-30	22.5	10700	_	_
Rem STS	1 oz.	1535	WIN 209	WAASL	_	_	38.5	10800
WIN AA	⁷ /8 oz.	1492	WIN 209	ACTIV TG-30	25.0	10000	_	_
WIN AA	⁷ /8 oz.	1608	WIN 209	ACTIV TG-30		_	40.0	10800
WIN AA	1 oz.	1494	WIN 209	WAA	_	_	38.5	9700

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SHO	TSHEL	L DAT	Ά	61	SHOTSHELL DATA				
	:	20-Gauge Le	N	o. 5	No. 7				
Shotshell Brand	Slug Wt. Ounces	Velocity Ft./Sec.	Primer	Wad	Grains Wt.	Approx. Pressure PSI	Grains Wt.	Approx. Pressure PSI	
ACTIV	³⁄4 OZ.	1569	WIN 209	FED 20S1 + .250" FELT WAD	_	1	32.0	11900	
FED TGT	³ / ₄ oz.	1492	WIN 209	FED 20S1 + .250" + .125"	26.0	11900	_	ı	
REM TGT	³ / ₄ oz.	1518	WIN 209	FED 20S1 + .500" CORK WAD	_	1	30.0	11500	
WIN AA	³ / ₄ oz.	1565	WIN 209	FED 20S1 + .250" FELT WAD	_	_	32.0	11900	

A QUICK GUIDE TO SHOTSHELL PRIMERS

(Approximately in Increasing Order of Strength)

Abbreviation/Manufacturer/SupplierComments

REM 209P (STS) Remington Arms Corp— A medium primer, well-suited to the Scot propellant line but may require a slightly higher charge weight of propellant than hotter primers for equal ballistics.

CCI 209 Blount Industries—A medium strength primer. Suitable for use with all Scot propellants. Do not confuse with the CCI 209M which is hotter.

WIN 209 Olin-Winchester Div.—A medium strength primer. Suitable for use with all Scot propellants.

CHED 209 Cheddite—Very similar to Winchester 209 primers in our testing.

FIO 616 Fiocchi SPA/Italy—A "magnum" strength primer. The 616 is of a slightly larger diameter. It is suitable for use with all Scot propellants.

CCI209M Blount Industries—A "magnum" strength primer, suitable for use with all Scot propellants. This primer will produce higher pressures than the CCI 209.

FED209A Federal Cartridge Co.—A "magnum" strength primer developed by Federal as a replacement for their FED 209. This primer is much more powerful and must not be directly substituted for the FED 209 as excessive pressure will result.

QUICK GUIDE TO WADS AND WAD ASSEMBLIES

Per Shot Weight	Similar Wads
12 GUAGE: 7/8 and 1 oz.	WINAA12SL, CB 1100-12, Green duster, Windjammer (long), HAWK II (black), PC Purple, TGT 12
1 oz.	Federal 12S0, CB 2100-12
1 ¹ /8 oz.	WINAA12, WT-12, CB 01118, CB 1118-12, Black Magic, Blue Duster
1 ¹ /8 oz.	Federal-12S3, CB 2118-12
1½ oz.	Remington-Fig8, CB 3118-12
1 ¹ /8 oz.	Windjammer (short), CB 4118-12, PC Red
20 GUAGE: ⁷ / ₈ oz.	WIN AA20, CB 1078-20, Duster-20
28 GUAGE: 3/4 oz.	WAA 28, CB 1034-28, Duster-28
410 GUAGE: 1/2 oz.	WIN AA41, CB 1050-41, Duster 410, Federal 410 SC, Remington SP 140



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